

EPA Registration No.
82572-1
vol. 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Amy Plato Roberts
Desert King Chile, Ltd.
c/o Technology Sciences Group, Inc.
712 Fifth Street, Ste. A
Davis, CA 95616

APR 16 2014

Subject: Desert King Chile, Ltd.; Quillaja Extract, EPA Reg. No. 82572-1; Amendment to Add Plantains and Subtropical Fruits; D# 487103, Application Dated 1/15/14

Dear Ms. Roberts:

The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(5), is acceptable provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Submit two (2) copies of your final printed labeling before you release the product for shipment. Final printed labeling means the label or labeling of the product when distributed or sold. Clearly legible reproductions or photo reductions will be accepted for unusual labels, such as those silk-screened directly onto glass or metal containers or large bags or drum labels.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(b). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

If you have any questions contact Chris Pfeifer at 703-308-0031 or by email at: pfeifer.chris@epa.gov.

Sincerely,



Sheryl K. Reilly, Associate Branch Chief
Biochemical Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)

Enclosure

CONCURRENCES

SYMBOL	7511P	7511P						
SURNAME	Pfeifer	Pfeifer						
DATE	4/16/14	4/16/14						

Master Label

Sublabel A: Agricultural Use

Sublabel B: Home Garden and Lawn Use

Optional Label Claims

Quillaja Extract

[Alternate brand names: QL Agri, QL Agri35]

Active Ingredient:

*Saponins of Quillaja saponaria.....8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code: XXX

ACCEPTED

APR 16 2014

Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for
the pesticide registered under
EPA Reg. No.

82572-1

Sublabel A: Agricultural Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Vineyards, Orchards, Field Crops, Turf and Ornamentals*

Active Ingredient:

*Saponins of Quillaja saponaria..... 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

(See back side for additional precautionary statements.)

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear
- Chemical-resistant gloves made of any waterproof material
- Shoes and socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Remove clothing/PPE immediately if product gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

(For 260 gallon containers: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.)

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulations.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment and the restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas without protective clothing during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Chemical-resistant gloves made of any waterproof material
- Protective eyewear
- Shoes and socks

EXCEPTION: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

NON - AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of the product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural and ornamental plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

Mixing:

Fill tank with water to at least half full, then add recommended dosage of Quillaja Extract directly to the tank and continue filling. Minimize agitation in the tank (shut off paddle agitation if possible) to prevent foaming. To reduce foaming, an agricultural defoamer may be added to the tank mix. However, Quillaja Extract foam is very water soluble, will form a true solution, and should not be a concern for settling in the tank. Apply solution within three hours of mixing.

Compatibility:

Quillaja Extract is a water soluble botanical extract. It is physically compatible with most water based pesticides and liquid fertilizers providing the pH of the final solution is in a pH range of 3 to 8. Do not apply Quillaja Extract with any other product before testing for physical and chemical compatibility. To determine compatibility, pour the recommended proportions of the products into a suitable container, mix and wait for 30 minutes. If product remains mixed, it is considered physically compatible.

Not all tank mix combinations have been tested with this product. If compatibility of this product with another product is unknown, test the mixture on a small scale.

Read and carefully observe the most restrictive of the labeling limitations and precautions of all product labels used in the tank mix. This product has properties similar to wetting agents and may enhance activity of some products as a wetting agent.

Application Methods: Consider the high solubility of this product when choosing a method of application and timing.

Foliar spray application (for powdery mildew): Apply by ground equipment to ensure complete and thorough coverage of foliage and/or crop. Contact of the disease organisms is essential for curative control.

Ground spray application (for nematodes and root rot): After area to be treated has been irrigated to field capacity, apply with a band or broadcast type sprayer, such as flat-fan or hollow cone nozzle tip system, to the soil surface. After application has been made it will be necessary to water with either drip, above ground sprinklers or reduced amount of furrow irrigation. Do not over irrigate following application of this product. Do not use flood irrigation to apply this product into the ground. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

For ground sprayer application in orchards or around trees, begin application next to the tree trunk and spray at least 50% of soil area or the area under the canopy of the tree, whichever is greatest.

Shank injection application (for nematodes): After area to be treated has been irrigated to field capacity, apply by shank injection to areas where roots are present. Use a sufficient number of injectors to cover area to be treated. If shank application is applied at the root zone, minimal irrigation is required to assure that product covers root zone.

Chemigation application (for nematodes and root rot): Apply Quillaja Extract through the following types of systems. Do not apply this product through any other type of irrigation system.

- Low volume (ground or underground) drip, drip tape, strip tubing, micro-jet sprinklers, mini-sprinklers;
- Sprinkler including center pivot, lateral move, end tow, side (wheel) roll, solid set, or hand move;
- Furrow.

Check irrigation system and emitters to ensure all systems are operating normally before injecting Quillaja Extract. Lack of effectiveness or crop injury can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, chemigation experts or the Distributor of this product.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. In addition, check local and state regulations regarding pesticide injection into public water systems.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Maintain the system's operating pressure low enough to prevent fogging and/or misting during applications. Inject Quillaja Extract into the irrigation system after the filter(s) or shut off the automatic back flush system in order to avoid back flushing of treated water.

Systems using a gravity flow pesticide dispensing system must meter the product into the water at the head of the field and downstream of the hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops.

Systems using a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of material that are compatible with pesticide and capable of being fitted with a system interlock.

For best results irrigate the soil to field capacity (down to two feet of soil) before pesticide application. For best results, inject Quillaja Extract into the irrigation line in the last quarter of the irrigation time. Continue irrigation until all lines are flushed. Maintain irrigation for enough time to assure this product has penetrated down into the targeted root zone. Do not over irrigate after applying this product. If excessive watering occurs immediately following application, this product may move down past the desired root zone due to its high water solubility. Do not irrigate for at least 24 hours following application of this product. Pest injury to the crop may result from uneven distribution of this product during application.

Do not allow air in the line prior to injecting Quillaja Extract. The product's density will cause swelling of the line due to foam formation and prevent uptake of material. If a pesticide supply tank is used, follow directions listed under "Mixing" above. There generally will be some level of foam at the base of the wetted area until it dissolves (usually within 30 minutes after application, depending on temperature and amount of water following application).

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone. Do not apply when wind speed favors drift beyond the areas intended for treatment

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases crop yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated

zone. For row crops, the irrigated zone is 30-50% of the row area. For orchards or around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Make single applications in the spring just prior to or during root flush, and again in the fall after harvest. For best results, make multiple applications in the spring, followed by a single application in the fall after harvest. Use Quillaja Extract in combination with other nematode control products in an IPM program to achieve season-long control of target pests.

Crop	Remarks
<p>Berries: (Not for Use in California) Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes (raisin, table, wine)</p> <p>Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p>	<p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, make multiple applications at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>

Cole Crops:

Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables:

Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables:

Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables:

Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Strawberry**Subtropical Fruits: (Not for Use in California)**

Banana, Date, Mango, Papaya, Pineapple, Plantain

Apply 1-7 days preplant to the planting zone. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.

On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.

<p>Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	<p>Apply prior to planting to row area to be planted. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.</p> <p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, make multiple applications at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>
<p>Turfgrass Ornamental lawns, Golf courses, Sod farms</p> <p>For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl.oz. in 3-7 gallons water per 1,000 sq.ft. (equivalent to 3 gallons in 130-300 gallons water per acre) using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% solution of Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p> <p>Do not water turfgrass for at least 12 hours following application of Quillaja Extract. Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.</p>

Application Rates for Control of Fungi

For control/suppression of **POWDERY MILDEW** in the following field and greenhouse-grown crops, apply 1-4 pints Quillaja Extract per acre as a foliar spray in 50-100 gallons

water per acre (equivalent to 0.5-1.5 fl.oz. in 1-2 gallons water per 1,000 sq.ft.) every 7-10 days depending on severity of infection. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot

Cereal Grains: Barley, Buckwheat, Corn, Millet, (pearl and proso), Oats, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild rice

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Legume Vegetables (succulent or dried): Bean (*Lupinus*, *Phaseolus* and *Vigna* spp.), Broad bean, Chickpea, Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum* spp.), Pigeon pea, Soybean, Sword bean

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Subtropical Fruits: Banana, Date, Mango, Papaya, Pineapple, Plantain

Additional crops: Hops, Mint (peppermint, spearmint), Tobacco

Herbs and Spices: Allspice, Angelica, Anise, Annatto, Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Cardamom, Cassia, Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove buds, Coriander, Coriander, Costmary, Culantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of paradise,

Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper, Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Turf: Ornamental lawns, golf courses and sod farms

For control/suppression of **PHYTOPHTHORA** and **PYTHIUM ROOT ROT** in the following field and greenhouse-grown crops, apply 2-4 quarts Quillaja Extract in 200 gallons water per acre (equivalent to 1.5-3 fl.oz. in 5 gallons water per 1,000 sq.ft.) to achieve a concentration of 2,500-5,000 ppm. Apply in early spring and fall, prior to root flush when soil temperatures are optimum for root infection. Apply to the entire root zone following, or at the end of, an irrigation cycle For best results, repeat application every 7 days, for up to 6 weeks. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo,

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish,

Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Additional crops: Avocado, Kiwifruit

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Application Rates to Enhance Plant Growth and Yield

Under good growing conditions, absent of plant parasitic nematodes or plant parasitic fungi, Quillaja Extract is beneficial to plant growth and yield as described below.

Crop	Benefit	Rate per Acre	Comment
Grapes	Increased Fruit Yield and Root Development	1-2 quarts	Apply at root flush followed by 2-4 applications at 7-14 day intervals.
Citrus	Increased Root Development	1-2 gallons	Apply at root flush followed by 2 quarts/acre every 14 days for 4-6 weeks.
Strawberry	Increased Root Development	2-4 pts	Apply every 14 days for 8-10 weeks.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in cool, dry area.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

(For containers ≤ 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

(For containers ≥ 30 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MECHANABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Sublabel B: Home Garden and Lawn Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Home Gardens and Lawns*

Active Ingredient:

*Saponins of Quillaja saponaria..... 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

See back side for additional precautionary statements.

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wear protective eyewear such as goggles, face shield or safety glasses and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For residential use in home gardens and lawns.

MIXING AND APPLICATION INSTRUCTIONS

Quillaja Extract is a concentrate that is easily mixed with water and applied with band or broadcast type sprayers. After mixing with water, apply solution within three hours of mixing. Irrigate area to be treated before application. After application has been made it may be necessary to water with either drip or above ground sprinklers. Do not over irrigate following application of this product. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone.

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated area using the application rate listed.

For around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Make single applications in the spring just prior to or during root flush, and again in the fall after harvest.

For best results, make multiple applications in the spring every 7 to 14 days for up to 10 weeks, followed by a single application in the fall after harvest.

Use Site	Rate
<p>Berries (Not for use in California): Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes</p> <p>Nut Trees: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p> <p>Cole Vegetables: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizune, Mustard greens, Mustard spinach, Rape greens</p> <p>Cucurbit Vegetables: Chaoyote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, Crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)</p> <p>Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and</p>	<p>Apply 8 fl. oz. of Quijalla Extract in 6 gallons of water per 1,000 sq. ft. Apply every 7-14 days for up to 10 weeks.</p>

<p>sweet), Tomatillo, Tomato</p> <p>Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard</p> <p>Strawberry</p> <p>Subtropical Fruits: Banana, Date, Mango, Papaya, Pineapple, Plantain</p> <p>Bulb Vegetables: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering plants, landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	
<p>Lawns: For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl. oz. of Quillaja Extract in 3-7 gallons of water per 1,000 sq. ft. using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p>

	Do not water lawn for at least 12 hours following application of Quillaja Extract. Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.
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Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: To be stored in original container in a cool, well-ventilated areas inaccessible to children and pets. Store above 40°F.

Pesticide/Container Disposal: Nonrefillable container. Do not refill or reuse this container. **If empty:** Place in trash or offer for recycling in available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MECHANABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

[] indicate optional text

Optional Label Claims:

- A Biopesticide
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Vineyards, Orchards, Field Crops, Turf and Ornamentals (Sublabel A only).
- Controls and/or Suppresses certain foliar diseases such as Powdery Mildew(s)
- Suppresses [Nematodes], [Powdery Mildew]
- For use also on Vegetable Crops Such as: Carrots, Peppers, Tomatoes, Broccoli, Squash, and Beets (Sublabel A only).
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Home Gardens and Lawns (Sublabel B only).
- (OMRI Listed logo)

Master Label

Sublabel A: Agricultural Use

Sublabel B: Home Garden and Lawn Use

Optional Label Claims

Quillaja Extract

[Alternate brand names: QL Agri, QL Agri35]

Active Ingredient:

*Saponins of Quillaja saponaria..... 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code: XXX

Sublabel A: Agricultural Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Vineyards, Orchards, Field Crops, Turf and Ornamentals*

Active Ingredient:

*Saponins of Quillaja saponaria..... 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

(See back side for additional precautionary statements.)

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
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EPA Reg. No.: 82572-1
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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear
- Chemical-resistant gloves made of any waterproof material
- Shoes and socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- ~~Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Never apply material so as to contaminate eating or drinking area.~~
- Remove clothing/PPE immediately if product gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

(For 260 gallon containers: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.)

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulations.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment and the restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas without protective clothing during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Chemical-resistant gloves made of any waterproof material
- Protective eyewear
- Shoes and socks

EXCEPTION: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

NON - AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of the product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural and ornamental plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

Mixing:

Fill tank with water to at least half full, then add recommended dosage of Quillaja Extract directly to the tank and continue filling. Minimize agitation ~~should be minimized~~ in the tank (shut off paddle agitation if possible) to prevent foaming. To reduce foaming, an agricultural defoamer may be added to the tank mix. However, Quillaja Extract foam is very water soluble, will form a true solution, and should not be a concern for settling in the tank. Apply solution within three hours of mixing.

Compatibility:

Quillaja Extract is a water soluble botanical extract. It is physically compatible with most water based pesticides and liquid fertilizers providing the pH of the final solution is in a pH range of 3 to 8. Do not apply Quillaja Extract with any other product before testing for physical and chemical compatibility. To determine compatibility, pour the recommended proportions of the products into a suitable container, mix and wait for 30 minutes. If product remains mixed, it is considered physically compatible.

Not all tank mix combinations have been tested with this product. If compatibility of this product with another product is unknown, test the mixture ~~should be tested~~ on a small scale.

Read and carefully observe the most restrictive of the labeling limitations and precautions of all product labels used in the tank mix. This product has properties similar to wetting agents and may enhance activity of some products as a wetting agent.

Application Methods: Consider the high solubility of this product when choosing a method of application and timing.

Foliar spray application (for powdery mildew): Apply by ground equipment to ensure complete and thorough coverage of foliage and/or crop. Contact of the disease organisms is essential for curative control.

Ground spray application (for nematodes and root rot): After area to be treated has been irrigated to field capacity, apply with a band or broadcast type sprayer, such as flat-fan or hollow cone nozzle tip system, to the soil surface. After application has been made it will be necessary to water with either drip, above ground sprinklers or reduced amount of furrow irrigation. Do not over irrigate following application of this product. Do not use flood irrigation to apply this product into the ground. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

For ground sprayer application in orchards or around trees, begin application next to the tree trunk and spray at least 50% of soil area or the area under the canopy of the tree, whichever is greatest.

Shank injection application (for nematodes): After area to be treated has been irrigated to field capacity, apply by shank injection to areas where roots are present. Use a sufficient number of injectors to cover area to be treated. If shank application is applied at the root zone, minimal irrigation is required to assure that product covers root zone.

Chemigation application (for nematodes and root rot): Apply Quillaja Extract through the following types of systems. Do not apply this product through any other type of irrigation system.

- Low volume (ground or underground) drip, drip tape, strip tubing, micro-jet sprinklers, mini-sprinklers;
- Sprinkler including center pivot, lateral move, end tow, side (wheel) roll, solid set, or hand move;
- Furrow.

Check irrigation system and emitters to ensure all systems are operating normally before injecting Quillaja Extract. Lack of effectiveness or crop injury can result from non-uniform distribution of treated water.

If you have questions about calibration, ~~you should~~ contact State Extension Service specialists, equipment manufacturers, chemigation experts or the Distributor of this product.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. In addition, check local and state regulations regarding pesticide injection into public water systems.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Maintain the system's operating pressure low enough to prevent fogging and/or misting during applications. Inject Quillaja Extract into the irrigation system after the filter(s) or shut off the automatic back flush system in order to avoid back flushing of treated water.

Systems using a gravity flow pesticide dispensing system must meter the product into the water at the head of the field and downstream of the hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops.

Systems using a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of material that are compatible with pesticide and capable of being fitted with a system interlock.

For best results irrigate the soil ~~It is highly recommended that the soil be irrigated to field capacity (down to two feet of soil) before pesticide application.~~ For best results, inject Quillaja Extract into the irrigation line in the last quarter of the irrigation time. Continue irrigation until all lines are flushed. Maintain irrigation for enough time to assure this product has penetrated down into the targeted root zone. Do not over irrigate after applying this product. If excessive watering occurs immediately following application, this product may move down past the desired root zone due to its high water solubility. Do not irrigate for at least 24 hours following application of this product. Pest injury to the crop may result from uneven distribution of this product during application.

Do not allow air in the line prior to injecting Quillaja Extract. The product's density will cause swelling of the line due to foam formation and prevent uptake of material. If a pesticide supply tank is used, follow directions listed under "Mixing" above. There generally will be some level of foam at the base of the wetted area until it dissolves (usually within 30 minutes after application, depending on temperature and amount of water following application).

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone. Do not apply when wind speed favors drift beyond the areas intended for treatment

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases crop yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated zone. For row crops, the irrigated zone is 30-50% of the row area. For orchards or around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Make single applications ~~should be made~~ in the spring just prior to or during root flush, and again in the fall after harvest. For best results, make multiple applications ~~may be made~~ in the spring, followed by a single application in the fall after harvest. Use Quillaja Extract in combination with other nematode control products in an IPM program to achieve season-long control of target pests.

Crop	Remarks
<p>Berries: (Not for Use in California) Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes (raisin, table, wine)</p> <p>Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p>	<p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, make multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>

Cole Crops:

Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables:

Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables:

Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables:

Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Strawberry**Subtropical Fruits: (Not for Use in California)**

Banana, Date, Mango, Papaya, Pineapple, Plantain

Apply 1-7 days preplant to the planting zone. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.

On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.

<p>Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	<p>Apply prior to planting to row area to be planted. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.</p> <p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, make multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>
<p>Turfgrass Ornamental lawns, Golf courses, Sod farms</p> <p>For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl.oz. in 3-7 gallons water per 1,000 sq.ft. (equivalent to 3 gallons in 130-300 gallons water per acre) using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% solution of Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p> <p>Do not water turfgrass for at least 12 hours following application of Quillaja Extract. Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.</p>

Application Rates for Control of Fungi

For control/suppression of **POWDERY MILDEW** in the following field and greenhouse-grown crops, apply 1-4 pints Quillaja Extract per acre as a foliar spray in 50-100 gallons

water per acre (equivalent to 0.5-1.5 fl.oz. in 1-2 gallons water per 1,000 sq.ft.) every 7-10 days depending on severity of infection. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welsh), Shallot

Cereal Grains: Barley, Buckwheat, Corn, Millet, (pearl and proso), Oats, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild rice

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Legume Vegetables (succulent or dried): Bean (*Lupinus*, *Phaseolus* and *Vigna* spp.), Broad bean, Chickpea, Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum* spp.), Pigeon pea, Soybean, Sword bean

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Subtropical Fruits: Banana, Date, Mango, Papaya, Pineapple, Plantain

Additional crops: Hops, Mint (peppermint, spearmint), Tobacco

Herbs and Spices: Allspice, Angelica, Anise, Annatto, Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Cardamom, Cassia, Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove buds, Coriander, Coriander, Costmary, Culantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of paradise,

Quillaja Extract; EPA Reg. No. 82572-1

REDLINE VERSION - MASTER LABEL - Version (16) dated April 15, 2014

Page 10 of 19

Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper, Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Turf: Ornamental lawns, golf courses and sod farms

For control/suppression of **PHYTOPHTHORA** and **PYTHIUM ROOT ROT** in the following field and greenhouse-grown crops, apply 2-4 quarts Quillaja Extract in 200 gallons water per acre (equivalent to 1.5-3 fl.oz. in 5 gallons water per 1,000 sq.ft.) to achieve a concentration of 2,500-5,000 ppm. Apply in early spring and fall, prior to root flush when soil temperatures are optimum for root infection. Apply to the entire root zone following, or at the end of, an irrigation cycle For best results, repeat application every 7 days, for up to 6 weeks. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo,

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish,

Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Additional crops: Avocado, Kiwifruit

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Application Rates to Enhance Plant Growth and Yield

Under good growing conditions, absent of plant parasitic nematodes or plant parasitic fungi, Quillaja Extract is beneficial to plant growth and yield as described below.

Crop	Benefit	Rate per Acre	Comment
Grapes	Increased Fruit Yield and Root Development	1-2 quarts	Apply at root flush followed by 2-4 applications at 7-14 day intervals.
Citrus	Increased Root Development	1-2 gallons	Apply at root flush followed by 2 quarts/acre every 14 days for 4-6 weeks.
Strawberry	Increased Root Development	2-4 pts	Apply every 14 days for 8-10 weeks.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in cool, dry area.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

(For containers ≤ 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

(For containers ≥ 30 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Sublabel B: Home Garden and Lawn Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Home Gardens and Lawns*

Active Ingredient:

*Saponins of Quillaja saponaria..... 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

See back side for additional precautionary statements.

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wear protective eyewear such as goggles, face shield or safety glasses and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For residential use in home gardens and lawns.

MIXING AND APPLICATION INSTRUCTIONS

Quillaja Extract is a concentrate that is easily mixed with water and applied with band or broadcast type sprayers. After mixing with water, apply solution within three hours of mixing. Irrigate area to be treated before application. After application has been made it may be necessary to water with either drip or above ground sprinklers. Do not over irrigate following application of this product. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone.

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated area using the application rate listed.

For around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Make single applications ~~should be made~~ in the spring just prior to or during root flush, and again in the fall after harvest.

For best results, make multiple applications ~~may be made~~ in the spring every 7 to 14 days for up to 10 weeks, followed by a single application in the fall after harvest.

Use Site	Rate
<p>Berries (Not for use in California): Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes</p> <p>Nut Trees: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p> <p>Cole Vegetables: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizune, Mustard greens, Mustard spinach, Rape greens</p> <p>Cucurbit Vegetables: Chaoyote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, Crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)</p> <p>Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and</p>	<p>Apply 8 fl. oz. of Quijalla Extract in 6 gallons of water per 1,000 sq. ft. Apply every 7-14 days for up to 10 weeks.</p>

<p>sweet), Tomatillo, Tomato</p> <p>Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard</p> <p>Strawberry</p> <p>Subtropical Fruits: Banana, Date, Mango, Papaya, Pineapple, Plantain</p> <p>Bulb Vegetables: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering plants, landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	
<p>Lawns: For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl. oz. of Quijalla Extract in 3-7 gallons of water per 1,000 sq. ft. using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p>

	Do not water lawn for at least 12 hours following application of Quillaja Extract. Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.
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Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: To be stored in original container in a cool, well-ventilated areas inaccessible to children and pets. Store above 40°F.

Pesticide/Container Disposal: Nonrefillable container. Do not refill or reuse this container. **If empty:** Place in trash or offer for recycling in available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

[] indicate optional text

Optional Label Claims:

- A Biopesticide
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Vineyards, Orchards, Field Crops, Turf and Ornamentals (Sublabel A only).
- Controls and/or Suppresses certain foliar diseases such as Powdery Mildew(s)
- Suppresses [Nematodes], [Powdery Mildew]
- For use also on Vegetable Crops Such as: Carrots, Peppers, Tomatoes, Broccoli, Squash, and Beets (Sublabel A only).
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Home Gardens and Lawns (Sublabel B only).
- (OMRI Listed logo)

Technology Sciences Group Inc.

712 Fifth St., Suite A
Davis, CA 95616
Direct dial: (202) 684-2784
Fax: (530) 757-1299
E-Mail: aroberts@tsgusa.com



Amy Plato Roberts
Senior Regulatory Consultant

Document Processing Desk (COADR)
Information Technology and Resources Management Division (7502P)
Office of Pesticide Programs, EPA
One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

April 15, 2014

RE: Updated address of record for Desert King Chile Ltd. (82572)

Dear Sir/Madam:

The purpose of this letter is to notify the Agency of an updated address of record for **Desert King Chile Ltd. (EPA Co. No. 82572)**, as follows:

Old company name and address:

77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

New company name and address:

Calle Limache 3405, Suite 57
Viña del Mar
Chile

Contact: Rodrigo Otero, Vice President; (619) 429-5222; rotero@desertking.com

There is no change of ownership and no change in authorized agent. If you have any questions, please do not hesitate to let me know.

Sincerely,

Amy Plato Roberts

Label Review

File Symbol: 82572-1

Date: 4/1/14

Reviewer: Chris Pfeifer

Site/Use	[Res / Ag / Both]			[Food / Non-Food / Both]	
Tox Categories: (B)ridged	[AcOral: 3 /AcDerm: 3 /AcInhl: B2 /EyeIrr: B2 /SkinIrr: 4 DermSens: No]				
Label Requirement	Acceptable	Not Acceptable	N/A	Comments Recommendations	LRM3
Restricted Use Pesticide	-----	-----	----		Ch 6
Product Name	√				Pg 12-3
Compny Name and Info	√				Pg 15-1
Identification Numbers	√				Ch 14
Net Contents	√				Ch 17
Ingredients Statement	√				Ch 5
Label Claims	√				Pgs 4-5, 5-7 11-10 & Ch 12
Alternate Formula			√		5-12

Precautionary Statements					
Label Requirement	Acceptable	Not Acceptable	N/A	Comments Recommendations	LRM3
KOROC	√				3-1 & 9 7-3 & 4
Signal Word	√				Ch 3 Ch 7 Ch 10
General Heading Precautionary Statements	√				Ch 7
First Aid (PRN 20001-1)	√			Edited	Ch 3 & 7

Hazards to Humans and Domestic Animals	√				Ch 3, 7-3
PPE (WPS) Engineering Controls	√				Ch 7, Pg 7-12 Pgs 10-4, 15
User Safety Requirements	√			Edited	Ch 10
User Safety Recommendations	√			Edited	Ch 10
Environmental Hazards	√				Ch 8
Physical and Chemical Hazards			√		Pg 3-4 Ch 9

Direct for USE (FIFRA Text, WPS plus Storage & Disposal)					
Label Requirement	Acceptable	Not Acceptable	N/A	Comments Recommendations	LRM3
Header: Directions for Use	√				10-16
Violation of Federal Law text	√				10-26, 11-7
WPS Text (PPE)	√			Edited	Ch 10, 7-1 7-11
Non-WPS Text	√			Edited	7-12, Ch 10
Storage and Disposal	√				11-16, Ch 13

Directions for Use (General Instructions and Information)					
Label Requirement	Acceptable	Not Acceptable	N/A	Comments Recommendations	LRM3
General Instructions and Sub-Header	√				
Chemigation / Prohibition			√		PRN
REI	√			Edited	Pg 10-20

Label Requirement	Acceptable	Not Acceptable	N/A	Comments Recommendations	LRM3
General Info. (non-site specific info. on uses, pests, mixing, and loading, tank mixing, etc.)	√				
General Precautions and Restrictions	√				
Directions for Use					
Directions for Application	√				
Warranty Information					
Consistency with label instructions	√				12-6
Not false or misleading	√			Edited	
<p>"The warranty section contains an overly broad statement concerning limitations of liability. As such, this statement may be misleading and may constitute misbranding under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is suggested that the existing statement be preceded by the phrase, "to the extent allowable by state law," or otherwise qualified to make it clear that this warranty is not intended to be a statement of law which implies that the buyer has no legal rights to recover damages from the manufacturer if he/she suffered a loss or injury from the product and concludes that it would be futile to pursue what might in reality be a valid claim."</p>					

S: 946301

Milestone Email:

Regulatory Type: Product Registration - Section 3

Resubmission: ☐ Yes ☒ No

Print Letter

Application Type: Amendment

Fee For Service: ☐ Yes ☒ No

Enter More Information

Billable: ☐ Yes ☒ No

Tracking

Company: 82572 DESERT KING CHILE, LTD.



Risk Manager: Biologicals & Pollution Prevention Division, PM Team 81

Product #: 82572-1

Product Name: GUILLAJA EXTRACT

Override#:

Me Too

Me Too

Section3:

Product Name:

Application Date: 15-Jan-2014



OPP Rec'd Date: 16-Jan-2014



Front End Date: 16-Jan-2014



Risk Manager Send Date: 23-Jan-2014



FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Receipt Content

Des

Paper Label

Fast Track: ☐New Ingredient: ☐

Receipt Description:

AMENDMENT

New Ingredient

Request Date:

New Ingredient

Received Date:

Form A: ☐

Signature Date:

Form B: ☐

Signature Date:

View/Edit



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

January 23, 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

HEATHER R. BJORNSON
TECHNOLOGY SCIENCES GROUP, INC.
DESERT KING CHILE, LTD.
1150 18TH ST., NW, SUITE 1000
WASHINGTON, DC 20036-

PRODUCT NAME: QUILLAJA EXTRACT
COMPANY NAME: DESERT KING CHILE, LTD.
OPP IDENTIFICATION NUMBER:
EPA FILE SYMBOL: 82572-1
EPA RECEIPT DATE: 01/16/14

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Biologicals & Pollution Prevention Division, PM Team 91, at (703) 308-6928.

Sincerely,

A handwritten signature in black ink, appearing to be "Front End Processing Staff".

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division



Fee for Service

{946301p~

This package includes the following

for Division

☐ New Registration

☒ Amendment

☐ AD

☒ BPPD

☐ RD

☐ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: _____

Risk Mgr.

91

Receipt No.

S-

946301

EPA File Symbol/Reg. No.

82572-1

Pin-Punch Date:

1/16/2014

✓ This item is NOT subject to FFS action.

Action Code:

Parent/Child Decisions:

Requested:

Granted:

Amount Due: \$ _____

☐ Inert Cleared for Intended Use

☐

Uncleared Inert in Product



Reviewer:

Andrew Byrnes

Date:

1/27/14

Remarks:

 <div style="margin-left: 20px;"> United States Environmental Protection Agency Washington, DC 20460 </div>		<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
Application for Pesticide – Section I			
1. Company/Product Number 82572-1		2. EPA Product Manager Linda Hollis	
4. Company/Product (Name) Quillaja Extract		3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted PM# 91/Biochemical/BPPD	
5. Name And Address Of Applicant (Include ZIP Code) Desert King Chile Ltd. 77 Antonio Bellet, Suite 401 Providencia, Santiago, CHILE <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	
Section II			
<input type="checkbox"/> Amendment – Explain below. <input type="checkbox"/> Final Printed labels in response to Agency letter dated _____ <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input checked="" type="checkbox"/> Notification – Explain below. <input type="checkbox"/> Other – Explain Below.			
Explanation: Use additional page(s) if necessary. (For section I and Section II.) Label amendment (Fast Track) to modify directions for use. Refer to the attached cover letter dated January 15, 2014.			
Section III			
1. Material This Product Will Be Packaged In:			
Child Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No * Certification must be submitted	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" No. per Unit Packaging wgt. Container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" No. per Unit Packaging wgt. Container	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(S) Retail Container 5, 10, 25, 50, 250 gallons	
6. Manner in Which Label is Affixed to Product		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
		<input checked="" type="checkbox"/> Lithographed <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____	
Section IV			
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Amy Plato Roberts, aroberts@tsgusa.com		Title Regulatory Consultant Telephone No. (Include Area Code) (202) 644-2784	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received <div style="text-align: center;">(Stamped)</div>
2. Signature 		3. Title Regulatory Consultant	
4. Typed Name Amy Plato Roberts		5. Date January 15, 2014	

Technology Sciences Group Inc.

712 Fifth St., Suite A
Davis, CA 95616
Direct dial: (202) 684-2784
Fax: (530) 757-1299
E-Mail: aroberts@tsgusa.com



Amy Plato Roberts
Senior Regulatory Consultant

Linda Hollis, Chief, Biochemical Pesticides Branch
Biopesticides and Pollution Prevention Division (7511P)
Office of Pesticide Programs, EPA
One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

January 15, 2014

RE: Quillaja Extract (82572-1)
Label amendment (Fast Track) to modify the direction for use

Dear Ms. Hollis:

Enclosed with this letter you will find the following in support of a label amendment (Fast Track) to modify the directions for use for the above referenced product:

- 1) 8570-1 Amendment form;
- 2) One (1) copy of the label with all changes highlighted in red;
- 3) One (2) clean copy of the label.

Label changes enacted are as follows:

- Page 8. Add "Subtropical Fruits" including plantains as a use site for nematodes. This crop grouping is already on the label as a use site for fungicidal activity (Page 10) and is allowed under the tolerance exemption for this active ingredient.
- Page 10. Add "plantains" to the list of Subtropical Fruits. Plantains are a type of banana, which is an already approved use site.
- Page 17. Add "Subtropical Fruits" including plantains as a use site for the residential sublabel. This crop grouping is already on the label as a use site for fungicidal activity (Page 10) and is allowed under the tolerance exemption for this active ingredient

If you have any questions or comments, please do not hesitate to let me know.

Regards,

Master Label

Sublabel A: Agricultural Use

Sublabel B: Home Garden and Lawn Use

Optional Label Claims

Quillaja Extract

[Alternate brand names: QL Agri, QL Agri35]

Active Ingredient:

*Saponins of Quillaja saponaria.....8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code: XXX

Sublabel A: Agricultural Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Vineyards, Orchards, Field Crops, Turf and Ornamentals*

Active Ingredient:

*Saponins of Quillaja saponaria.....8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

**KEEP OUT OF REACH OF CHILDREN
WARNING - ADVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

See back side for additional precautionary statements.

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear
- Chemical-resistant gloves made of any waterproof material
- Shoes and socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Wear appropriate PPE, Remove and wash contaminated clothing

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Never apply material so as to contaminate eating or drinking area.
- Remove clothing/PPE immediately if product gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

For terrestrial use

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulations.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment and the restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas without protective clothing during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Chemical-resistant gloves made of any waterproof material
- Protective eyewear
- Shoes and socks

NON - AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of the product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural and ornamental plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

Mixing:

Fill tank with water to at least half full, then add recommended dosage of Quillaja Extract directly to the tank and continue filling. Agitation should be minimized in the tank (shut off paddle agitation if possible) to prevent foaming. To reduce foaming, an agricultural defoamer may be added to the tank mix. However, Quillaja Extract foam is very water soluble, will form a true solution, and should not be a concern for settling in the tank. Apply solution within three hours of mixing.

Compatibility:

Quillaja Extract is a water soluble botanical extract. It is physically compatible with most water based pesticides and liquid fertilizers providing the pH of the final solution is in a pH range of 3 to 8. Do not apply Quillaja Extract with any other product before testing for physical and chemical compatibility. To determine compatibility, pour the recommended proportions of the products into a suitable container, mix and wait for 30 minutes. If product remains mixed, it is considered physically compatible.

Not all tank mix combinations have been tested with this product. If compatibility of this product with another product is unknown, the mixture should be tested on a small scale.

Read and carefully observe the most restrictive of the labeling limitations and precautions of all product labels used in the tank mix. This product has properties similar to wetting agents and may enhance activity of some products as a wetting agent.

Application Methods: Consider the high solubility of this product when choosing a method of application and timing.

Foliar spray application (for powdery mildew): Apply by ground equipment to ensure complete and thorough coverage of foliage and/or crop. Contact of the disease organisms is essential for curative control.

Ground spray application (for nematodes and root rot): After area to be treated has been irrigated to field capacity, apply with a band or broadcast type sprayer, such as flat-fan or hollow cone nozzle tip system, to the soil surface. After application has been made it will be necessary to water with either drip, above ground sprinklers or reduced amount of furrow irrigation. Do not over irrigate following application of this product. Do not use flood irrigation to apply this product into the ground. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

For ground sprayer application in orchards or around trees, begin application next to the tree trunk and spray at least 50% of soil area or the area under the canopy of the tree, whichever is greatest.

Shank injection application (for nematodes): After area to be treated has been irrigated to field capacity, apply by shank injection to areas where roots are present. Use a sufficient number of injectors to cover area to be treated. If shank application is applied at the root zone, minimal irrigation is required to assure that product covers root zone.

Chemigation application (for nematodes and root rot): Apply Quillaja Extract through the following types of systems. Do not apply this product through any other type of irrigation system.

- Low volume (ground or underground) drip, drip tape, strip tubing, micro-jet sprinklers, mini-sprinklers;
- Sprinkler including center pivot, lateral move, end tow, side (wheel) roll, solid set, or hand move;
- Furrow.

Check irrigation system and emitters to ensure all systems are operating normally before injecting Quillaja Extract. Lack of effectiveness or crop injury can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, chemigation experts or the Distributor of this product.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. In addition, check local and state regulations regarding pesticide injection into public water systems.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Maintain the system's operating pressure low enough to prevent fogging and/or misting during applications. Inject Quillaja Extract into the irrigation system after the filter(s) or shut off the automatic back flush system in order to avoid back flushing of treated water.

Systems using a gravity flow pesticide dispensing system must meter the product into the water at the head of the field and downstream of the hydraulic discontinuity, such as

a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops.

Systems using a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of material that are compatible with pesticide and capable of being fitted with a system interlock.

For Best results irrigate

It is highly recommended that the soil be irrigated to field capacity (down to two feet of soil) before pesticide application. For best results, inject Quillaja Extract into the irrigation line in the last quarter of the irrigation time. Continue irrigation until all lines are flushed. Maintain irrigation for enough time to assure this product has penetrated down into the targeted root zone. Do not over irrigate after applying this product. If excessive watering occurs immediately following application, this product may move down past the desired root zone due to its high water solubility. Do not irrigate for at least 24 hours following application of this product. Pest injury to the crop may result from uneven distribution of this product during application.

Do not allow air in the line prior to injecting Quillaja Extract. The product's density will cause swelling of the line due to foam formation and prevent uptake of material. If a pesticide supply tank is used, follow directions listed under "Mixing" above. There generally will be some level of foam at the base of the wetted area until it dissolves (usually within 30 minutes after application, depending on temperature and amount of water following application).

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone. Do not apply when wind speed favors drift beyond the areas intended for treatment

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases crop yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated zone. For row crops, the irrigated zone is 30-50% of the row area. For orchards or around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Single applications should be made in the spring just prior to or during root flush, and again in the fall after harvest. For best results, multiple applications may be made in the spring, followed by a single application in the fall after harvest. Use Quillaja Extract in combination with other nematode control products in an IPM program to achieve season-long control of target pests.

Crop	Remarks
Berries: (Not for Use in California) Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red) Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo Grapes (raisin, table, wine) Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English) Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune	<p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>

Cole Crops:

Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables:

Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables:

Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables:

Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Strawberry**Subtropical Fruits:** (Not for Use in California)

Banana, Date, Mango, Papaya, Pineapple, Plantain

Apply 1-7 days preplant to the planting zone. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.

On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.

<p>Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	<p>Apply prior to planting to row area to be planted. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.</p> <p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>
<p>Turfgrass Ornamental lawns, Golf courses, Sod farms</p> <p>For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl.oz. in 3-7 gallons water per 1,000 sq.ft. (equivalent to 3 gallons in 130-300 gallons water per acre) using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% solution of Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p> <p>Do not water turfgrass for at least 12 hours following application of Quillaja Extract. Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.</p>

Application Rates for Control of Fungi

For control/suppression of **POWDERY MILDEW** in the following field and greenhouse-grown crops, apply 1-4 pints Quillaja Extract per acre as a foliar spray in 50-100 gallons

water per acre (equivalent to 0.5-1.5 fl.oz. in 1-2 gallons water per 1,000 sq.ft.) every 7-10 days depending on severity of infection. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welsh), Shallot

Cereal Grains: Barley, Buckwheat, Corn, Millet, (pearl and proso), Oats, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild rice

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Legume Vegetables (succulent or dried): Bean (*Lupinus*, *Phaseolus* and *Vigna* spp.), Broad bean, Chickpea, Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum* spp.), Pigeon pea, Soybean, Sword bean

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Subtropical Fruits: Banana, Date, Mango, Papaya, Pineapple.

Additional crops: Hops, Mint (peppermint, spearmint), Tobacco

Herbs and Spices: Allspice, Angelica, Anise, Annatto, Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Cardamom, Cassia, Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove buds, Coriander, Coriander, Costmary, Culantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of paradise,

Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper, Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Turf: Ornamental lawns, golf courses and sod farms

For control/suppression of **PHYTOPHTHORA and PYTHIUM ROOT ROT** in the following field and greenhouse-grown crops, apply 2-4 quarts Quillaja Extract in 200 gallons water per acre (equivalent to 1.5-3 fl.oz. in 5 gallons water per 1,000 sq.ft.) to achieve a concentration of 2,500-5,000 ppm. Apply in early spring and fall, prior to root flush when soil temperatures are optimum for root infection. Apply to the entire root zone following, or at the end of, an irrigation cycle For best results, repeat application every 7 days, for up to 6 weeks. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo,

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish,

Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Additional crops: Avocado, Kiwifruit

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Application Rates to Enhance Plant Growth and Yield

Under good growing conditions, absent of plant parasitic nematodes or plant parasitic fungi, Quillaja Extract is beneficial to plant growth and yield as described below.

Crop	Benefit	Rate per Acre	Comment
Grapes	Increased Fruit Yield and Root Development	1-2 quarts	Apply at root flush followed by 2-4 applications at 7-14 day intervals.
Citrus	Increased Root Development	1-2 gallons	Apply at root flush followed by 2 quarts/acre every 14 days for 4-6 weeks.
Strawberry	Increased Root Development	2-4 pts	Apply every 14 days for 8-10 weeks.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in cool, dry area.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

(For containers ≤ 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

(For containers ≥ 30 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MECHANABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Sublabel B: Home Garden and Lawn Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Home Gardens and Lawns*

Active Ingredient:

*Saponins of Quillaja saponaria.....8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

See back side for additional precautionary statements.

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wear protective eyewear such as goggles, face shield or safety glasses and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For residential use in home gardens and lawns.

MIXING AND APPLICATION INSTRUCTIONS

Quillaja Extract is a concentrate that is easily mixed with water and applied with band or broadcast type sprayers. After mixing with water, apply solution within three hours of mixing. Irrigate area to be treated before application. After application has been made it may be necessary to water with either drip or above ground sprinklers. Do not over irrigate following application of this product. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone.

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated area using the application rate listed.

For around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Single applications should be made in the spring just prior to or during root flush, and again in the fall after harvest.

For best results, multiple applications may be made in the spring every 7 to 14 days for up to 10 weeks, followed by a single application in the fall after harvest.

Use Site	Rate
<p>Berries (Not for use in California): Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes</p> <p>Nut Trees: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p> <p>Cole Vegetables: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizune, Mustard greens, Mustard spinach, Rape greens</p> <p>Cucurbit Vegetables: Chaoyote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, Crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)</p> <p>Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and</p>	<p>Apply 8 fl. oz. of Quillaja Extract in 6 gallons of water per 1,000 sq. ft. Apply every 7-14 days for up to 10 weeks.</p>

Quillaja Extract; EPA Reg. No. 82572-1

MASTER LABEL - Version (15) – January 15, 2014

Page 16 of 19

<p>sweet), Tomatillo, Tomato</p> <p>Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard</p> <p>Strawberry</p> <p>Subtropical Fruits: Banana, Date, Mango, Papaya, Pineapple, Plantain</p> <p>Bulb Vegetables: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering plants, landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	
<p>Lawns: For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl. oz. of Quijalla Extract in 3-7 gallons of water per 1,000 sq. ft. using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p>

	Do not water lawn for at least 12 hours following application of Quillaja Extract. Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.
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Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: To be stored in original container in a cool, well-ventilated areas inaccessible to children and pets. Store above 40°F.

Pesticide/Container Disposal: Nonrefillable container. Do not refill or reuse this container. **If empty:** Place in trash or offer for recycling in available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

[] indicate optional text

Optional Label Claims:

- A Biopesticide
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Vineyards, Orchards, Field Crops, Turf and Ornamentals (Sublabel A only).
- Controls and/or Suppresses certain foliar diseases such as Powdery Mildew(s)
- Suppresses [Nematodes], [Powdery Mildew]
- For use also on Vegetable Crops Such as: Carrots, Peppers, Tomatoes, Broccoli, Squash, and Beets (Sublabel A only).
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Home Gardens and Lawns (Sublabel B only).
- (OMRI Listed logo)



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460**

**OFFICE OF CHEMICAL
SAFETY AND POLLUTION
PREVENTION**

March 25, 2014

I, Linda Hollis, Biochemical Pesticides Branch, Biopesticides & Pollution Prevention Division, Office of Pesticide Programs, Office of Chemical Safety and Pollution Prevention, United States Environmental Protection Agency ("EPA"), certify that the pesticide product (s) listed below is, as of the date of this letter, a registered product under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, and that as such, the product(s) may be sold and marketed in the United States of America as authorized and limited by FIFRA. A true and correct copy of the product label approved by EPA is attached to accompany this letter.

Registration of this product(s) with EPA also denotes that the registrant listed below is responsible for ensuring full compliance with all the laws of the United States of America, or governing jurisdiction, regarding the sale, storage and/or disposal of the product(s). Further, the recipient of this letter is on notice that the referenced registration and/or the accompanying label may change subsequent to the date of this letter. EPA assumes no responsibility to notify the recipient(s) (i.e., Chile) of this letter of any change in the status of the registration(s) and/or the product label for the product(s) listed below.

EPA has issued registration numbers for the product(s) listed below to:

Desert King Chile, Ltd.
1150 18Th St., Nw, Suite 1000
Washington, DC 20036

EPA Registration Number: 82572-1
Name of Product: QUILLAJA EXTRACT

A handwritten signature in black ink, appearing to read "Linda Hollis", is positioned above the typed name.

Linda Hollis
Risk Manager 91
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division
(7511P)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL
SAFETY AND POLLUTION
PREVENTION

March 25, 2014

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1150 18Th St., Nw, Suite 1000
Washington, DC 20036

EPA Registration Number: 82572-1
Name of Product: QUILLAJA EXTRACT

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Linda Hollis
Risk Manager 91
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division
(7511P)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL
SAFETY AND POLLUTION
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March 25, 2014

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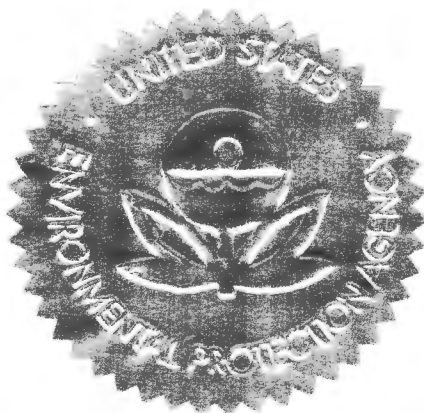
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Desert King Chile, Ltd.
1150 18Th St., Nw, Suite 1000
Washington, DC 20036

EPA Registration Number: 82572-1
Name of Product: QUILLAJA EXTRACT

Linda Hollis
Risk Manager 91
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division
(7511P)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL
SAFETY AND POLLUTION
PREVENTION

March 25, 2014

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EPA has issued registration numbers for the product(s) listed below to:

Desert King Chile, Ltd.
1150 18Th St., Nw, Suite 1000
Washington, DC 20036

EPA Registration Number: 82572-1
Name of Product: QUILLAJA EXTRACT

Linda Hollis
Risk Manager 91
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division
(7511P)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL
SAFETY AND POLLUTION
PREVENTION

March 25, 2014

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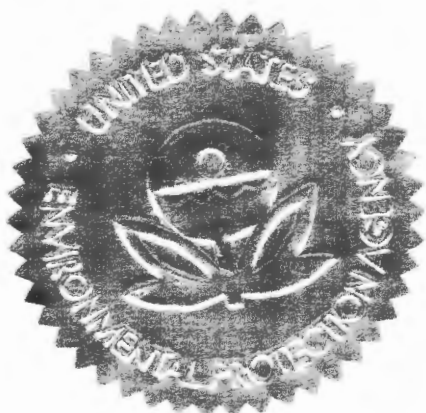
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EPA has issued registration numbers for the product(s) listed below to:

Desert King Chile, Ltd.
1150 18Th St., Nw, Suite 1000
Washington, DC 20036

EPA Registration Number: 82572-1
Name of Product: QUILLAJA EXTRACT

Linda Hollis
Risk Manager 91
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division
(7511P)



Technology Sciences Group Inc.

712 Fifth St., Suite A
Davis, CA 95616
Direct dial: (202) 684-2784
Fax: (530) 757-1299
E-Mail: aroberts@tsgusa.com



Amy Plato Roberts

Senior Regulatory Consultant

Linda Hollis
Biopesticides and Pollution Prevention Division (7511P)
Office of Pesticide Programs
U.S. Environmental Protection Agency
Document Processing Center
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, Virginia 22202

March 21, 2014

Re: Request for Gold Seal Certificates
Company: Desert King Chile, Ltd.
Product Name: Quillaja Extract
EPA Reg. No.: 82572-1

Dear Ms. Nesci:

Technology Sciences Group, Inc., on behalf of Desert King Chile, Ltd., hereby requests gold seal certificates/letters to be legalized for the registrant's use in obtaining product registration in Chile, Israel, Kenya, Macedonia and Mexico for the following EPA-registered product:

Product: Quillaja Extract
Alternate Name(s): QL Agri, QL Agri35
EPA Reg. No.: 82572-1
Registrant Information: Desert King Chile, Ltd.
Antonio Bellet 77, Of. 401
Providencia Santiago, Chile

A review of the PPLS database indicates that the most recent stamped-accepted label on file for this product is November 16, 2011, with a final printed label submitted thereafter. It is interpreted under PRIA that this action should be classified as M006, with a corresponding review time of 1 month. Please find enclosed the following documents supporting this request:

- 1) EPA Pesticide Application Form (EPA Form 8570-1);
- 2) PRIA pre-payment receipt: Pay.Gov Tracking ID: 25EU5JT5; Agency Tracking ID: 74589589414.

Let me know if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Amy', with a long horizontal flourish extending to the right.

Amy Plato Roberts
Regulatory Agent for Desert King Chile, Ltd.
(202) 684-2784; aroberts@tsgusa.com

Receipt for Section 3

S: 949521

Milestone Email:

Regulatory Type: Product Registration - Section 3

Application Type: Amendment

Company: 82572 DESERT KING CHILE, LTD.

Risk Manager: Biologicals & Pollution Prevention Division, PM Team 91

Product #: 82572-1 Product Name: QUILLAJA EXTRACT

Fee For Service: ☐ Yes ☒ No

Billable: ☐ Yes ☒ No

Print Letter

Enter More Information

Tracking

Me Too
Section3:

Me Too Product
Name:

Application Date: 21-Mar-2014

OPP Rec'd Date: 24-Mar-2014

Front End Date: 24-Mar-2014

Risk Manager Send Date: 25-Mar-2014

FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Receipt Content

Des

Other

Gold Seals

View/Edit

Receipt Description:

Gold Seal Certificates (E)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

March 25, 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

OPP Decision Number: D-489019
EPA File Symbol or Registration Number: 82572-1
Product Name: QUILLAJA EXTRACT
EPA Receipt Date: 24-Mar-2014
EPA Company Number: 82572
Company Name: DESERT KING CHILE, LTD.

AMY ROBERTS
TECHNOLOGY SCIENCES GROUP, INC.
DESERT KING CHILE, LTD.
1150 18TH ST., NW, SUITE 1000
WASHINGTON, DC 20036-

SUBJECT: Receipt of Request for Gold Seal Certification Letter(s)

Dear Registrant:

The Office of Pesticide Programs has received your request for Gold Seal Certification letter(s) that is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The action has been identified as action code M006:

UP TO 5 GOLD SEAL CERTIFICATION LETTERS PER REGISTRATION

No additional payment is due at this time. If you have any questions, please contact Betty Williams at (703) 308-0132.

Sincerely,

A handwritten signature in black ink, appearing to be "m/ zhe", is written over the typed name.

Front End Processing Staff
Information Technology & Resources Management Division

	United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number

Application for Pesticide – Section I

1. Company/Product Number 82572-1	2. EPA Product Manager Linda Hollis	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Quillaja Extract	PM# 91/Microbial/BPPD	
5. Name And Address Of Applicant (Include ZIP Code) Desert King Chile, Ltd. Antonio Bellet 77, Of. 401 Providencia Santiago, Chile <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

Section II

<input type="checkbox"/> Amendment – Explain below.	<input type="checkbox"/> Final Printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification – Explain below.	<input checked="" type="checkbox"/> Other – Explain Below.


Explanation: Use additional page(s) if necessary. (For section I and Section II.)

PRIA Category M006. Submission of Application/Request for Letters of Certification (Gold Seal letters) for Quillaja Extract. A PRIA pre-payment has been made for this action and receipt included in this application (Pay.Gov Tracking ID: 25EU5JT5; Agency Tracking ID: 74589589414).

Please confirm receipt with Amy Roberts: aroberts@tsqusa.com, via phone (202) 684-2784.**Section III**

1. Material This Product Will Be Packaged In:			
Child Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per Container	If "Yes" Unit Packaging wgt. No. per Container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(S) Retail Container	5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithographed <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			

Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Amy Plato Roberts	Title Regulatory Consultant	Telephone No. (Include Area Code) (202) 684-2784	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Regulatory Consultant	
4. Typed Name Amy Plato Roberts		5. Date March 21, 2014	

Online Payment

Step 3: Confirm Payment

1 | 2 | 3

Thank you.

Your transaction has been successfully completed.

Pay.gov Tracking Information

Application Name: PRIA Service Fees

Pay.gov Tracking ID: 25EU5JT5

Agency Tracking ID: 74589589414

Transaction Date and Time: 03/21/2014 13:46 EDT

Payment Summary

Address Information

Account Holder Name: Amy Plato Roberts
Billing Address: 1150 18th Street, NW, Ste 1000
Technology Sciences Group
Address 2: Inc.
City: Washington
State / Province: DC
Zip / Postal Code: 20036
Country: USA

Account Information

American Card Type: Express
Card Number: *****2368
Decision Number:
Registration Number: 82572-1
Company Name: Desert King Chile, Ltd.
Company Number: 82572
Action Code: M006

Payment Information

Payment Amount: \$263.00
Transaction Date 03/21/2014
and Time: 13:46 EDT

Material Sent for Data Extraction

Reg. # 82572-1

Description: Quillaja (Additional Container handling language)

☒ Material(s) Sent to Data Extraction Contractors:

☐ New Stamped Label Dated _____

☒ Notification Dated April 18, 2013

☐ New CSF(s) Dated _____

☐ Other: _____

☐ Decision #: _____

☐ Other Action/Comments: _____

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Sprester George

Phone: (703) 603-0688 Division: BPRD

Date: 6/17/2013

Closed in BPRD



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 17, 2013

Technology Sciences Group
712 Fifth Street, Suite A
Davis, CA 95616
Attn: Amy Plato Roberts

Subject: Notification: Addition of container handling language for containers equal to or greater than 30 gallons, consistent with the provisions of PR Notice 98-10.

Product name: **Quillaja Extract.**
EPA Reg. No: 82572-1.
Your Submission dated April 18, 2013.

Dear Ms. Roberts:

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under Pesticide Registration Notice (PRN) 98-10 dated above. A screen of this request has been conducted for its applicability under PRN 98-10, and it has been determined that the action requested falls within the scope of this Notice. Our records have been duly noted, and the label submitted with this application has been stamped "Notification Accepted" and will be placed accordingly in our records.

Three (3) copies of final printed labeling must be submitted to the Agency before your product as modified, may be sold or distributed [PR Notice 82-2 and 40 CFR 156.10(a) (6)].

If you have any questions regarding this action, you may contact Mr. Sylvester George at (703) 603-0688 or via e-mail at george.sylvester@epa.gov.

Sincerely,

Linda A. Hollis

Linda A. Hollis, Chief
Biochemical Pesticide Branch
Biopesticides and Pollution
Prevention Division (7511P)

Technology Sciences Group Inc.

712 Fifth St., Suite A
Davis, CA 95616
Direct in CA: (530) 757-1432
Direct in DC: (202) 828-8964
Fax: (530) 757-1299
E-Mail: aroberts@tsgusa.com



Amy Plato Roberts
Senior Regulatory Consultant

Linda Hollis, Chief, Biochemical Pesticides Branch
Biopesticides and Pollution Prevention Division (7511P)
Office of Pesticide Programs, EPA
One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

April 18, 2013

RE: Quillaja Extract (82572-1)
Label notification to add container handling for ≥30 gallon containers

Dear Ms. Hollis:



Enclosed with this letter you will find the following in support of a label notification to add container handling language for ≥30 gallon containers to the above referenced product:

- 1) 8570-1 Notification form;
- 2) One (1) copy of the label with all changes highlighted in red.

Container handling language added is in compliance with PRN 2007-4. If you have any questions or comments, please do not hesitate to let me know.

Regards,

Amy Plato Roberts
Direct dial (202) 684-2784; aroberts@tsgusa.com

	United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
Application for Pesticide – Section I			
1. Company/Product Number 82572-1		2. EPA Product Manager Linda Hollis	
4. Company/Product (Name) Quillaja Extract		3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted	
5. Name And Address Of Applicant (Include ZIP Code) Desert King Chile Ltd. 77 Antonio Bellet, Suite 401 Providencia, Santiago, CHILE <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	
Section II			
<input type="checkbox"/> Amendment – Explain below. <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification – Explain below.		<input type="checkbox"/> Final Printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Other – Explain Below.	
Notification Accepted Date: 6/17/2013 Reviewer: Sylvester George			
Explanation: Use additional page(s) if necessary. (For section I and Section II.) Label NOTIFICATION to add container handling language for containers equal or greater than 30 gallons. <p>This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.</p>			
Section III			
1. Material This Product Will Be Packaged In:			
Child Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No * Certification must be submitted	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" No. per Unit Packaging wgt. Container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" No. per Unit Packaging wgt. Container	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(S) Retail Container 5, 10, 25, 50, 250 gallons	
5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product		6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithographed <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____	
Section IV			
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Amy Plato Roberts, aroberts@tsqusa.com		Title Regulatory Consultant	
		Telephone No. (Include Area Code) (202) 604-2784	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Regulatory Consultant	
4. Typed Name Amy Plato Roberts		5. Date April 18, 2013	

Master Label

Sublabel A: Agricultural Use

Sublabel B: Home Garden and Lawn Use

Optional Label Claims

Quillaja Extract

Notification Accepted

[Alternate brand names: QL Agri, QL Agri35]

Date: 6/17/2013

Reviewer: Sylvester George

Active Ingredient:

*Saponins of Quillaja saponaria 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code: XXX

Sublabel A: Agricultural Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Vineyards, Orchards, Field Crops, Turf and Ornamentals*

Active Ingredient:

*Saponins of Quillaja saponaria 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

See back side for additional precautionary statements.

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

Quillaja Extract; EPA Reg. No. 82572-1

NOTIFICATION to add container handling language for ≥30 gal containers per PRN 2007-4

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear
- Chemical-resistant gloves made of any waterproof material
- Shoes and socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Never apply material so as to contaminate eating or drinking area.
- Remove clothing/PPE immediately if product gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulations.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment and the restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas without protective clothing during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Chemical-resistant gloves made of any waterproof material
- Protective eyewear
- Shoes and socks

NON - AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of the product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural and ornamental plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

Mixing:

Fill tank with water to at least half full, then add recommended dosage of Quillaja Extract directly to the tank and continue filling. Agitation should be minimized in the tank (shut off paddle agitation if possible) to prevent foaming. To reduce foaming, an agricultural defoamer may be added to the tank mix. However, Quillaja Extract foam is very water soluble, will form a true solution, and should not be a concern for settling in the tank. Apply solution within three hours of mixing.

Compatibility:

Quillaja Extract is a water soluble botanical extract. It is physically compatible with most water based pesticides and liquid fertilizers providing the pH of the final solution is in a pH range of 3 to 8. Do not apply Quillaja Extract with any other product before testing for physical and chemical compatibility. To determine compatibility, pour the recommended proportions of the products into a suitable container, mix and wait for 30 minutes. If product remains mixed, it is considered physically compatible.

Not all tank mix combinations have been tested with this product. If compatibility of this product with another product is unknown, the mixture should be tested on a small scale.

Quillaja Extract, EPA Reg. No. 82572-1

NOTIFICATION to add container handling language for ≥30 gal containers per PRN 2007-4

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Read and carefully observe the most restrictive of the labeling limitations and precautions of all product labels used in the tank mix. This product has properties similar to wetting agents and may enhance activity of some products as a wetting agent.

Application Methods: Consider the high solubility of this product when choosing a method of application and timing.

Foliar spray application (for powdery mildew): Apply by ground equipment to ensure complete and thorough coverage of foliage and/or crop. Contact of the disease organisms is essential for curative control.

Ground spray application (for nematodes and root rot): After area to be treated has been irrigated to field capacity, apply with a band or broadcast type sprayer, such as flat-fan or hollow cone nozzle tip system, to the soil surface. After application has been made it will be necessary to water with either drip, above ground sprinklers or reduced amount of furrow irrigation. Do not over irrigate following application of this product. Do not use flood irrigation to apply this product into the ground. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

For ground sprayer application in orchards or around trees, begin application next to the tree trunk and spray at least 50% of soil area or the area under the canopy of the tree, whichever is greatest.

Shank injection application (for nematodes): After area to be treated has been irrigated to field capacity, apply by shank injection to areas where roots are present. Use a sufficient number of injectors to cover area to be treated. If shank application is applied at the root zone, minimal irrigation is required to assure that product covers root zone.

Chemigation application (for nematodes and root rot): Apply Quillaja Extract through the following types of systems. Do not apply this product through any other type of irrigation system.

- Low volume (ground or underground) drip, drip tape, strip tubing, micro-jet sprinklers, mini-sprinklers;
- Sprinkler including center pivot, lateral move, end tow, side (wheel) roll, solid set, or hand move;
- Furrow.

Check irrigation system and emitters to ensure all systems are operating normally before injecting Quillaja Extract. Lack of effectiveness or crop injury can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, chemigation experts or the Distributor of this product.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. In addition, check local and state regulations regarding pesticide injection into public water systems.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Maintain the system's operating pressure low enough to prevent fogging and/or misting during applications. Inject Quillaja Extract into the irrigation system after the filter(s) or shut off the automatic back flush system in order to avoid back flushing of treated water.

Systems using a gravity flow pesticide dispensing system must meter the product into the water at the head of the field and downstream of the hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops.

Systems using a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of material that are compatible with pesticide and capable of being fitted with a system interlock.

It is highly recommended that the soil be irrigated to field capacity (down to two feet of soil) before pesticide application. For best results, inject Quillaja Extract into the irrigation line in the last quarter of the irrigation time. Continue irrigation until all lines are flushed. Maintain irrigation for enough time to assure this product has penetrated down into the targeted root zone. Do not over irrigate after applying this product. If excessive watering occurs immediately following application, this product may move down past the desired root zone due to its high water solubility. Do not irrigate for at least 24 hours following application of this product. Pest injury to the crop may result from uneven distribution of this product during application.

Do not allow air in the line prior to injecting Quillaja Extract. The product's density will cause swelling of the line due to foam formation and prevent uptake of material. If a pesticide supply tank is used, follow directions listed under "Mixing" above. There generally will be some level of foam at the base of the wetted area until it dissolves (usually within 30 minutes after application, depending on temperature and amount of water following application).

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone. Do not apply when wind speed favors drift beyond the areas intended for treatment

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases crop yields. To control/suppress plant parasitic nematodes, apply *Quillaja Extract* to the full irrigated zone. For row crops, the irrigated zone is 30-50% of the row area. For orchards or around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Single applications should be made in the spring just prior to or during root flush, and again in the fall after harvest. For best results, multiple applications may be made in the spring, followed by a single application in the fall after harvest. Use *Quillaja Extract* in combination with other nematode control products in an IPM program to achieve season-long control of target pests.

Crop	Remarks
<p>Berries: (Not for Use in California) Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes (raisin, table, wine)</p> <p>Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p>	<p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>

Cole Crops:

Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables:

Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables:

Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables:

Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Strawberry

Apply 1-7 days preplant to the planting zone. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.

On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.

<p>Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	<p>Apply prior to planting to row area to be planted. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.</p> <p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>
<p>Turfgrass Ornamental lawns, Golf courses, Sod farms</p> <p>For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl.oz. in 3-7 gallons water per 1,000 sq.ft. (equivalent to 3 gallons in 130-300 gallons water per acre) using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% solution of Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p> <p>Do not water turfgrass for at least 12 hours following application of Quillaja Extract. Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.</p>

Application Rates for Control of Fungi

For control/suppression of **POWDERY MILDEW** in the following field and greenhouse-grown crops, apply 1-4 pints Quillaja Extract per acre as a foliar spray in 50-100 gallons

Quillaja Extract; EPA Reg. No. 82572-1

NOTIFICATION to add container handling language for >30 gal containers per PRN 2007-4

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water per acre (equivalent to 0.5-1.5 fl.oz. in 1-2 gallons water per 1,000 sq.ft.) every 7-10 days depending on severity of infection. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welsh), Shallot

Cereal Grains: Barley, Buckwheat, Corn, Millet, (pearl and proso), Oats, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild rice

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Legume Vegetables (succulent or dried): Bean (*Lupinus*, *Phaseolus* and *Vigna* spp.), Broad bean, Chickpea, Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum* spp.), Pigeon pea, Soybean, Sword bean

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celery, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Subtropical Fruits: Banana, Date, Mango, Papaya, Pineapple

Additional crops: Hops, Mint (peppermint, spearmint), Tobacco

Herbs and Spices: Allspice, Angelica, Anise, Annatto, Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Cardamom, Cassia, Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove buds, Coriander, Coriander,

Quillaja Extract, EPA Reg. No. 82572-1

NOTIFICATION to add container handling language for 230 gal containers per PRN 2007-4

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Costmary, Culantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper, Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Turf: Ornamental lawns, golf courses and sod farms

For control/suppression of **PHYTOPHTHORA** and **PYTHIUM ROOT ROT** in the following field and greenhouse-grown crops, apply 2-4 quarts Quillaja Extract in 200 gallons water per acre (equivalent to 1.5-3 fl.oz. in 5 gallons water per 1,000 sq.ft.) to achieve a concentration of 2,500-5,000 ppm. Apply in early spring and fall, prior to root flush when soil temperatures are optimum for root infection. Apply to the entire root zone following, or at the end of, an irrigation cycle For best results, repeat application every 7 days, for up to 6 weeks. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo,

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Additional crops: Avocado, Kiwifruit

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Application Rates to Enhance Plant Growth and Yield

Under good growing conditions, absent of plant parasitic nematodes or plant parasitic fungi, Quillaja Extract is beneficial to plant growth and yield as described below.

Crop	Benefit	Rate per Acre	Comment
Grapes	Increased Fruit Yield and Root Development	1-2 quarts	Apply at root flush followed by 2-4 applications at 7-14 day intervals.
Citrus	Increased Root Development	1-2 gallons	Apply at root flush followed by 2 quarts/acre every 14 days for 4-6 weeks.
Strawberry	Increased Root Development	2-4 pts	Apply every 14 days for 8-10 weeks.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in cool, dry area.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

(For containers ≤ 5 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

(For containers ≥ 30 gallons)

Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Sublabel B: Home Garden and Lawn Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Home Gardens and Lawns*

(OMRI Listed logo)

Active Ingredient:

*Saponins of Quillaja saponaria 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

See back side for additional precautionary statements.

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wear protective eyewear such as goggles, face shield or safety glasses and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For residential use in home gardens and lawns.

MIXING AND APPLICATION INSTRUCTIONS

Quillaja Extract is a concentrate that is easily mixed with water and applied with band or broadcast type sprayers. After mixing with water, apply solution within three hours of mixing. Irrigate area to be treated before application. After application has been made it may be necessary to water with either drip or above ground sprinklers. Do not over irrigate following application of this product. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone.

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated area using the application rate listed.

For around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Single applications should be made in the spring just prior to or during root flush, and again in the fall after harvest.

For best results, multiple applications may be made in the spring every 7 to 14 days for up to 10 weeks, followed by a single application in the fall after harvest.

Use Site	Rate
<p>Berries (Not for use in California): Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes</p> <p>Nut Trees: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p> <p>Cole Vegetables: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizune, Mustard greens, Mustard spinach, Rape greens</p> <p>Cucurbit Vegetables: Chaoyote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, Crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)</p> <p>Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper</p>	<p>Apply 8 fl. oz. of Quillaja Extract in 6 gallons of water per 1,000 sq. ft. Apply every 7-14 days for up to 10 weeks.</p>

<p>(including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato</p> <p>Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard</p> <p>Strawberry</p> <p>Bulb Vegetables: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering plants, landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	
<p>Lawns: For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl. oz. of Quillaja Extract in 3-7 gallons of water per 1,000 sq. ft. using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p> <p>Do not water lawn for at least 12 hours following application of Quillaja Extract.</p>

	Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.
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Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: To be stored in original container in a cool, well-ventilated areas inaccessible to children and pets. Store above 40°F.

Pesticide/Container Disposal: Nonrefillable container. Do not refill or reuse this container. **If empty:** Place in trash or offer for recycling in available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

[] indicate optional text

Optional Label Claims:

- A Biopesticide
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Vineyards, Orchards, Field Crops, Turf and Ornamentals (Sublabel A only).
- Controls and/or Suppresses certain foliar diseases such as Powdery Mildew(s)
- Suppresses [Nematodes], [Powdery Mildew]
- For use also on Vegetable Crops Such as: Carrots, Peppers, Tomatoes, Broccoli, Squash, and Beets (Sublabel A only).
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Home Gardens and Lawns (Sublabel B only).
- OMRI Listed logo)

Receipt for Section 3

S: 934476

Resubmission: ☐ Yes ☒ No

Regulatory Type: Product Registration - Section 3

Fee For Service: ☐ Yes ☒ No

Print Letter

Application Type: Notification

Enter More Information

Company: 82572 DESERT KING CHILE, LTD.

V

Tracking

Risk Manager: Biologicals & Pollution Prevention Division, PM Team 91

Product #: 82572-1

Product Name: QUILLAJA EXTRACT

Override#:

Me Too
Section3:

Me Too
Product Name:

Application Date: 18-Apr-2013

id

OPP Rec'd Date: 25-Apr-2013

id

Front End Date: 25-Apr-2013

id

Risk Manager Send Date: 25-Apr-2013

id

FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Receipt Content

Des

Paper Label

View/Edit

Fast Track: ☐

New Ingredient: ☐

Receipt Description:

Label Notification to add container handling

New Ingredient

Request Date

New Ingredient

Received Date

Form A: ☐

Signature Date:

Form B: ☐

Signature Date:

400 332

Notification



S George, 4/29/2013
G.B.

thru record 8/29/2012



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 17, 2013

Technology Sciences Group
712 Fifth Street, Suite A
Davis, CA 95616
Attn: Amy Plato Roberts

Subject: Notification: Addition of container handling language for containers equal to or greater than 30 gallons, consistent with the provisions of PR Notice 98-10.

Product name: **Quillaja.**
EPA Reg. No: 82572-1.
Your Submission dated April 18, 2013.

Dear Ms. Roberts:

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under Pesticide Registration Notice (PRN) 98-10 dated above. A screen of this request has been conducted for its applicability under PRN 98-10, and it has been determined that the action requested falls within the scope of this Notice. Our records have been duly noted, and the label submitted with this application has been stamped "Notification Accepted" and will be placed accordingly in our records.

Three (3) copies of final printed labeling must be submitted to the Agency before your product as modified, may be sold or distributed [PR Notice 82-2 and 40 CFR 156.10(a) (6)].

If you have any questions regarding this action, you may contact Mr. Sylvester George at (703) 603-0688 or via e-mail at george.sylvester@epa.gov.

Sincerely,

Linda A. Hollis

Linda A. Hollis, Chief
Biochemical Pesticide Branch
Biopesticides and Pollution
Prevention Division (7511P)

Decision Information for 82572-1

Decision Seq: 478288

Action Code: 332,NOTIFICATION,30

FFS Start Date:

Tentative Ind: No

Start/Stop Clock

FGPA Clock:

Due Date: 25-May-2013

75-Day Due Date:

Days Elapsed:

OPP Target Due Date:

21-Day Due Date:

FFS Original Decision:

Negotiated Due Date:

45/90 Due Date:

Registrant

Predecisional

Response Due Date:

Due Date:

Current Status: PENDING (02-May-2013)

Decision Status

Tracking

Create Resubmission

FFS Letters

Action Code History

Secondary Decision

Decision Ownership

Receipts

Data Package

Reduced Risk

Meetings & Milestones

FFS Information

75 Day Letters

45/90 Day Screen

Primary Decisions

FFS Negotiated Due Dates

OPP Target Due Date

Decision Comments

Payment

Unmatched Payments

332 Notification - Assigned to S. George

Viewing Record 1 of 1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Desert King Chile, Ltd.
c/o Amy Plato Roberts
Technology Sciences Group, Inc.
712 Fifth Street, Suite A
Davis, CA 95616

NOV 20 2012


Subject: Label Amendment to add Organic Materials Review Institute (OMRI) logo.
Quillaja Extract
EPA Reg. No.: 82572-1
Your submission dated August 10, 2012
Decision Number: 469124

Dear Ms. Roberts:

The amendment to the label referred to above submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) section 3(c)(5), as amended, has been received and reviewed by the Biopesticides and Pollution Prevention Division (BPPD) and the proposed amendment is unacceptable. Should you wish to continue to pursue these changes to your label, you will need to submit a new application for fast track action. In doing so, you should satisfactorily address the deficiencies listed in the Confidential Attachment to this letter when you make your new submission.

Should you have any questions, you may contact Mr. Colin Walsh directly at (703) 308-0298 or via email at walsh.colin@epa.gov.

Sincerely,


Linda A. Hollis, Chief
Biochemical Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)

Attachment

CONCURRENCES							
SYMBOL	7511P						
SURNAME	Walsh						
DATE	11/19/12						

Confidential Attachment

National Organic Program (NOP) Deficiencies

- 1) The active ingredient, Saponins of Quillaja, is likely allowed under NOP; however, you must provide clarification as to the product's naturalness (bona fides). While natural extracts are allowed, synthetic derivatives are not allowed without the USDA's approval. It is unclear relative to the footnote on the substitution of "*bidesmosidic derivatives" whether this is a natural active ingredient or whether it is a synthetic biochemical-like active ingredient. You must clarify this issue.
- 2) You did not provide any information on the inert ingredients (e.g., a Material Safety Data Sheet (MSDS), Specification Sheet, or Certificate of Analysis (COA)). It is also noted that [REDACTED] is not on EPA's List 4. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] This explanation may have to be shared with USDA for concurrence regarding its acceptability. If you have previously submitted this information to the Agency, you may submit a copy of the information and/or cite the appropriate MRID.
- 3) Further to #2 above, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. You must remove [REDACTED] from your formulation and replace it with an approved food-use inert ingredient immediately or provide justification and/or information that [REDACTED] should be allowed in your formulation as an inert ingredient. If you have previously submitted this information to the Agency, you may submit a copy of the information and/or cite the appropriate MRID.

EPA National Organic Program Labeling Request Checklist

Reviewer Name: Chris Pfeifer

RAL: Colin Walsh

Product Name: Quillaja Extract (EPA Reg. No.: 82572-1)

Completion Date: 11/13/12

Determination: Not Permitted

Receipt Date: 8/30/12

#	Check list Item	Yes	No
1	Active Ingredients - Are all of the active ingredient(s) " <i>Allowed</i> " on the <u>National List</u> ?	?	
2	Active Ingredients History - Is the active ingredient on the BPPD list of previous NOP approvals (f:/USER/SHARE/BPPD/Organic/Copy of NOP/allowableble.pdf or ALLOWED.xls)?	Y	
3	Inert Ingredients - Are all of the inert(s) found on the August 2004 EPA list <u>4A</u> and <u>4B</u> ?	?	
4	Inert Ingredients - Have any inert(s) been recently revoked (<u>Revoked List 4 Inerts</u>)?		N
5	Use Sites - Are all the product's use sites within the scope of the designated use patterns cited in the <i>National List</i> ?		N
6	Language - Is the requested label language allowable. (Acceptable language includes: " <i>For Use in Organic Production</i> "; " <i>For Organic Production</i> "; " <i>For Use in Organic Gardening</i> "; " <i>For Organic Gardening</i> "; " <i>OMRI Listed</i> "; the OMRI logo; and the three leaf EPA <u>NOP Logo</u> .)	?	
7	OMRI Certification - Does the application have a current OMRI certificate?	Y	
8	<p>Comments -</p> <p>#1) The listed active ingredient - Saponins of Quillaja - is likely allowed. However, the applicant must provide clarification as to the product's naturalness (bona fides). While natural extracts are allowed, synthetic derivatives are not allowed (without USDA approval). It is unclear relative to the footnote on the substitution of "*bidesmosidic derivatives" whether this is a natural active ingredient or whether it is a synthetic biochemical-like active ingredient. Please have the registrant clarify.</p> <p>#2) No information was provided on the inert ingredient(s) (e.g an MSDS, Specification Sheet or COA). Accordingly, no assessment could be done. It is also noted that [REDACTED] is not on List 4. [REDACTED]</p> <p>[REDACTED] The registrant must provide an explanation for the inert's applicability to the NOP. (This explanation may have to be shared with USDA for concurrence regarding the inert's acceptability.)</p> <p>#3) Special Note to RAL: [REDACTED]</p> <p>[REDACTED]</p> <p>#4) The use sites would be within the scope of USDA NOP, other issues resolved. #4) The NOP Language - an OMRI Listed logo - would be acceptable if the other issues are resolved.</p> <p>#5) The term "organic" cannot appear anywhere on the label, except as part of the allowed NOP claims. Accordingly, the term "organic" extract must be removed from the label; and the company name must be amended. (OPP management and OGC have concurred that this policy extends to company names.) Clearly, the name Marrone Organic Innovations has the potential to mislead and must either be truncated to Marrone's or amended to remove the safety claim.</p> <p>#6) Please confirm that there are no other CSFs to be considered.</p> <p>Do not permit the NOP labeling of this product.</p>		

Inert ingredient information may be entitled to confidential treatment

This review contains **CONFIDENTIAL BUSINESS INFORMATION (CBI)**. Do not release this document to the registrant if it contains confidential information on proprietary mixes.

Program Links - National Organic Program (AMS - NOP); PR Notice 2003-1 (PR Notice 2003-1)

BPPD Guidance Document - Other Items May be Required

S: 822077

Resubmission: ☐ Yes ☒ No

Regulatory Type: Product Registration - Section 3

Fee For Service: ☐ Yes ☒ No

Application Type: Amendment

Billable: ☐ Yes ☒ No

Company: 82572 DESERT KING CHILE, LTD.

V

Print Letter

Enter More Information

Tracking


Risk Manager: Biologicals & Pollution Prevention Division, PM Team 91


Product #: 82572-1 Product Name: GULLAJA EXTRACT


Override#:

Me Too Section3: Me Too Product Name:

Application Date: 10-Aug-2012 

OPP Rec'vd Date: 15-Aug-2012 

Front End Date: 15-Aug-2012 

Risk Manager Send Date: 23-Aug-2012 

FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Fast Track: ☐ New Ingredient: ☐

Receipt Description:

Paper Label Amendment

Receipt Content	Des
Paper Label	
<div>< ></div>	
View/Edit	

Form A: ☐ Signature Date:

Form B: ☐ Signature Date:

New Ingredient Request Date:
New Ingredient Received Date:
Signature Date:

Receipt for Section 3			
S: 822077	Resubmission: <input type="radio"/> Yes <input checked="" type="radio"/> No	<div>Print Letter</div> <div>Enter More Information</div> <div>Tracking</div>	
Regulatory Type: Product Registration - Section 3	Fee For Service: <input type="radio"/> Yes <input checked="" type="radio"/> No		
Application Type: Amendment	Billable: <input checked="" type="radio"/> Yes <input type="radio"/> No		
Company: 82572 DESERT KING CHILE, LTD.	V		
Risk Manager: Biologicals & Pollution Prevention Division, PM Team 91			
Product #: 82572-1	Product Name: QULLAJA EXTRACT		
Override#:			
Me Too Section3:	Me Too Product Name:		
Application Date: 10-Aug-2012	OPP Rec'd Date: 15-Aug-2012	<div>Receipt Content</div> <div>Paper Label</div> <div>Des</div>	
Front End Date: 15-Aug-2012	Risk Manager Send Date:		
FFS Due Date:	Negotiated Due Date:		
OPP Target Date:			
Fast Track: <input type="checkbox"/>	New Ingredient: <input type="checkbox"/>	View/Edit	
Receipt Description:			
Paper Label Amendment		<div>New Ingredient Request Date: </div> <div>New Ingredient Received Date: </div>	
Form A: <input type="checkbox"/>	Signature Date:	Form B: <input type="checkbox"/>	Signature Date:

300 - Omri ADDition

LH
8/23/12



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

August 23, 2012

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

HEATHER R. BJORNSON
TECHNOLOGY SCIENCES GROUP, INC.
DESERT KING CHILE, LTD.
1150 18TH ST., NW, SUITE 1000
WASHINGTON, DC 20036-

PRODUCT NAME: QUILLAJA EXTRACT
COMPANY NAME: DESERT KING CHILE, LTD.
OPP IDENTIFICATION NUMBER:
EPA FILE SYMBOL: 82572-1
EPA RECEIPT DATE: 08/15/12

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Biologicals & Pollution Prevention Division, PM Team 91, at (703) 308-8733.

Sincerely,

A handwritten signature in black ink, which appears to read "Mary C. Symons", is positioned above the typed name and title.

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Fee for Service

{9220774~

This package includes the following

- ☐ New Registration
- ☒ Amendment

- ☐ Studies? ☐ Fee Waiver?
- ☐ volpay % Reduction: ____

for Division

- ☐ AD
- ☒ BPPD
- ☐ RD

Risk Mgr. 91

Receipt No.

S-

922077

EPA File Symbol/Reg. No.

82572-1

Pin-Punch Date:

8/15/2012

☒ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: \$ _____

Parent/Child Decisions:

☐ Inert Cleared for Intended Use

☐ Uncleared Inert in Product

Reviewer: LHbills

Date: 8/23/12

Remarks:

See OPPM Receipt

Technology Sciences Group Inc.

712 Fifth St., Suite A
Davis, CA 95616
Direct in CA: (530) 757-1432
Direct in DC: (202) 828-8964
Fax: (530) 757-1299
E-Mail: aroberts@tsgusa.com



Amy Plato Roberts
Senior Regulatory Consultant

Linda Hollis, Chief, Biochemical Pesticides Branch
Biopesticides and Pollution Prevention Division (7511P)
Office of Pesticide Programs, EPA
One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

August 10, 2012

**RE: Quillaja Extract (82572-1)
Label amendment (FAST TRACK) to add OMRI Listed Logo**

Dear Ms. Hollis:

Enclosed with this letter you will find the following in support of a label amendment to add the OMRI Listed logo to the above referenced product:



- 1) 8570-1 Amendment form;
- 2) Copy of the OMRI certificate for this product;
- 3) One (1) copy of the label with all changes highlighted in red;
- 4) Five (5) clean copies of the label.

The only change to the product label is the addition of the OMRI listed logo. If you have any questions or comments, please do not hesitate to let me know.

Regards,

A handwritten signature in black ink, appearing to read 'Amy Plato Roberts', with a long horizontal stroke extending to the right.

Amy Plato Roberts
Direct dial (530) 757-1432; aroberts@tsgusa.com

		United States Environmental Protection Agency Washington, DC 20460		<input type="checkbox"/> Registration <input checked="" type="checkbox"/> Amendment <input type="checkbox"/> Other	OPP Identifier Number
Application for Pesticide – Section I					
1. Company/Product Number 82572-1		2. EPA Product Manager Linda Hollis		3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted	
4. Company/Product (Name) Quillaja Extract		PM# 91/Biochemical/BPPD			
5. Name And Address Of Applicant (Include ZIP Code) Desert King Chile Ltd. 77 Antonio Bellet, Suite 401 Providencia, Santiago, CHILE <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____			
Section II					
<input checked="" type="checkbox"/> Amendment – Explain below. <input type="checkbox"/> Final Printed labels in response to Agency letter dated _____ <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Notification – Explain below. <input type="checkbox"/> Other – Explain Below.					
Explanation: Use additional page(s) if necessary. (For section I and Section II.)					
Label amendment (FAST TRACK) to add OMRI Listed logo. See cover letter dated August 10, 2012 for details.					
Section III					
1. Material This Product Will Be Packaged In:					
Child Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" No. per Unit Packaging wgt. Container	If "Yes" No. per Unit Packaging wgt. Container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(S) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product		<input type="checkbox"/> Lithographed <input type="checkbox"/> Pager glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			
Section IV					
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)					
Name Amy Plato Roberts, aroberts@tsgusa.com		Title Regulatory Consultant		Telephone No. (Include Area Code) (530) 757-1432	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6. Date Application Received (Stamped)
2. Signature 		3. Title Regulatory Consultant			
4. Typed Name Amy Plato Roberts		5. Date August 10, 2012			



OMRI Listed®

The following product is OMRI Listed. It may be used in certified organic production or food processing and handling according to the USDA National Organic Program Rule.

Product
Quillaja Extract

Company
Desert King Chile
Rodrigo Otero
7024 Manya Circle
San Diego, CA 92154

Status
Allowed with Restrictions

Category
Nematicides – nonsynthetic

Issue Date
17-Dec-07

Product number
dkc-1060

Class
Crop Pest, Weed, and Disease Control

Expiration Date
01-Mar-2013

Restrictions

May be used as a pesticide if the requirements of 205.206(e) are met, which requires the use of preventative, mechanical, physical, and other pest, weed, and disease management practices.

Executive Director

Product review is conducted according to the policies in the current OMRI Policy Manual and based on the standards in the current OMRI Standards Manual. To verify the current status of this or any OMRI Listed product, view the most current version of the OMRI Products List at www.omri.org. OMRI listing is not equivalent to organic certification and is not a product endorsement. It cannot be construed as such. Final decisions on the acceptability of a product for use in a certified organic system are the responsibility of a USDA accredited certification agent. It is the operator's responsibility to properly use the product, including following any restrictions.



Organic Materials Review Institute
P.O. Box 11558, Eugene, OR 97440-3758, USA
541.343.7600 • fax 541.343.8971 • info@omri.org • www.omri.org

Im3 Rev 03.3.17 201112050929

Master Label

Sublabel A: Agricultural Use

Sublabel B: Home Garden and Lawn Use

Optional Label Claims

Quillaja Extract

[Alternate brand names: QL Agri, QL Agri35]

Active Ingredient:

*Saponins of Quillaja saponaria8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code: XXX

Sublabel A: Agricultural Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Vineyards, Orchards, Field Crops, Turf and Ornamentals*

(OMRI Listed logo)

Active Ingredient:

*Saponins of Quillaja saponaria 8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

See back side for additional precautionary statements.

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Protective eyewear
- Chemical-resistant gloves made of any waterproof material
- Shoes and socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Never apply material so as to contaminate eating or drinking area.
- Remove clothing/PPE immediately if product gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulations.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on the label about personal protective equipment and the restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas without protective clothing during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Chemical-resistant gloves made of any waterproof material
- Protective eyewear
- Shoes and socks

NON - AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of the product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural and ornamental plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

Mixing:

Fill tank with water to at least half full, then add recommended dosage of Quillaja Extract directly to the tank and continue filling. Agitation should be minimized in the tank (shut off paddle agitation if possible) to prevent foaming. To reduce foaming, an agricultural defoamer may be added to the tank mix. However, Quillaja Extract foam is very water soluble, will form a true solution, and should not be a concern for settling in the tank. Apply solution within three hours of mixing.

Compatibility:

Quillaja Extract is a water soluble botanical extract. It is physically compatible with most water based pesticides and liquid fertilizers providing the pH of the final solution is in a pH range of 3 to 8. Do not apply Quillaja Extract with any other product before testing for physical and chemical compatibility. To determine compatibility, pour the recommended proportions of the products into a suitable container, mix and wait for 30 minutes. If product remains mixed, it is considered physically compatible.

Not all tank mix combinations have been tested with this product. If compatibility of this product with another product is unknown, the mixture should be tested on a small scale.

Read and carefully observe the most restrictive of the labeling limitations and precautions of all product labels used in the tank mix. This product has properties similar to wetting agents and may enhance activity of some products as a wetting agent.

Application Methods: Consider the high solubility of this product when choosing a method of application and timing.

Foliar spray application (for powdery mildew): Apply by ground equipment to ensure complete and thorough coverage of foliage and/or crop. Contact of the disease organisms is essential for curative control.

Ground spray application (for nematodes and root rot): After area to be treated has been irrigated to field capacity, apply with a band or broadcast type sprayer, such as flat-fan or hollow cone nozzle tip system, to the soil surface. After application has been made it will be necessary to water with either drip, above ground sprinklers or reduced amount of furrow irrigation. Do not over irrigate following application of this product. Do not use flood irrigation to apply this product into the ground. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

For ground sprayer application in orchards or around trees, begin application next to the tree trunk and spray at least 50% of soil area or the area under the canopy of the tree, whichever is greatest.

Shank injection application (for nematodes): After area to be treated has been irrigated to field capacity, apply by shank injection to areas where roots are present. Use a sufficient number of injectors to cover area to be treated. If shank application is applied at the root zone, minimal irrigation is required to assure that product covers root zone.

Chemigation application (for nematodes and root rot): Apply Quillaja Extract through the following types of systems. Do not apply this product through any other type of irrigation system.

- Low volume (ground or underground) drip, drip tape, strip tubing, micro-jet sprinklers, mini-sprinklers;
- Sprinkler including center pivot, lateral move, end tow, side (wheel) roll, solid set, or hand move;
- Furrow.

Check irrigation system and emitters to ensure all systems are operating normally before injecting Quillaja Extract. Lack of effectiveness or crop injury can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, chemigation experts or the Distributor of this product.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. In addition, check local and state regulations regarding pesticide injection into public water systems.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Maintain the system's operating pressure low enough to prevent fogging and/or misting during applications. Inject Quillaja Extract into the irrigation system after the filter(s) or shut off the automatic back flush system in order to avoid back flushing of treated water.

Systems using a gravity flow pesticide dispensing system must meter the product into the water at the head of the field and downstream of the hydraulic discontinuity, such as a drop structure or weir box, to decrease potential for water source contamination from backflow if water flow stops.

Systems using a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of material that are compatible with pesticide and capable of being fitted with a system interlock.

It is highly recommended that the soil be irrigated to field capacity (down to two feet of soil) before pesticide application. For best results, inject Quillaja Extract into the irrigation line in the last quarter of the irrigation time. Continue irrigation until all lines are flushed. Maintain irrigation for enough time to assure this product has penetrated down into the targeted root zone. Do not over irrigate after applying this product. If excessive watering occurs immediately following application, this product may move down past the desired root zone due to its high water solubility. Do not irrigate for at least 24 hours following application of this product. Pest injury to the crop may result from uneven distribution of this product during application.

Do not allow air in the line prior to injecting Quillaja Extract. The product's density will cause swelling of the line due to foam formation and prevent uptake of material. If a pesticide supply tank is used, follow directions listed under "Mixing" above. There generally will be some level of foam at the base of the wetted area until it dissolves (usually within 30 minutes after application, depending on temperature and amount of water following application).

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone. Do not apply when wind speed favors drift beyond the areas intended for treatment

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases crop yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated zone. For row crops, the irrigated zone is 30-50% of the row area. For orchards or around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Single applications should be made in the spring just prior to or during root flush, and again in the fall after harvest. For best results, multiple applications may be made in the spring, followed by a single application in the fall after harvest. Use Quillaja Extract in combination with other nematode control products in an IPM program to achieve season-long control of target pests.

Crop	Remarks
<p>Berries: (Not for Use in California) Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes (raisin, table, wine)</p> <p>Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p>	<p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>

Cole Crops:

Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables:

Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables:

Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables:

Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Strawberry

Apply 1-7 days preplant to the planting zone. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.

On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.

For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.

<p>Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	<p>Apply prior to planting to row area to be planted. Apply centered on the top of the row on pre-wetted soil. Follow with water to assure penetration of the product into the root zone.</p> <p>On heavily infested soils, apply 3 gallons in 300-600 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>On light to moderately infested soils, apply 1.5 gallons in 150-300 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) in a single application.</p> <p>For best results, multiple applications may be made at a rate of 2 quarts/acre in 50-100 gallons water per acre (to achieve a concentration of 5,000-10,000 ppm) every 7-14 days for up to 10 weeks.</p>
<p>Turfgrass Ornamental lawns, Golf courses, Sod farms</p> <p>For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl.oz. in 3-7 gallons water per 1,000 sq.ft. (equivalent to 3 gallons in 130-300 gallons water per acre) using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% solution of Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p> <p>Do not water turfgrass for at least 12 hours following application of Quillaja Extract. Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.</p>

Application Rates for Control of Fungi

For control/suppression of **POWDERY MILDEW** in the following field and greenhouse-grown crops, apply 1-4 pints Quillaja Extract per acre as a foliar spray in 50-100 gallons

Quillaja Extract; EPA Reg. No. 82572-1
Label amendment (FAST TRACK) to add OMRI Listed logo
MASTER LABEL - Version (13) – August 10, 2012
Page 9 of 19

water per acre (equivalent to 0.5-1.5 fl.oz. in 1-2 gallons water per 1,000 sq.ft.) every 7-10 days depending on severity of infection. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Bulb Vegetable: Garlic, Leek, Onion (including dry bulb, green and Welsh), Shallot

Cereal Grains: Barley, Buckwheat, Corn, Millet, (pearl and proso), Oats, Popcorn, Rice, Rye, Sorghum (milo), Teosinte, Triticale, Wheat, Wild rice

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Legume Vegetables (succulent or dried): Bean (*Lupinus*, *Phaseolus* and *Vigna* spp.), Broad bean, Chickpea, Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum* spp.), Pigeon pea, Soybean, Sword bean

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Subtropical Fruits: Banana, Date, Mango, Papaya, Pineapple

Additional crops: Hops, Mint (peppermint, spearmint), Tobacco

Herbs and Spices: Allspice, Angelica, Anise, Annatto, Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Cardamom, Cassia, Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove buds, Coriander, Coriander,

Costmary, Culantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper, Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Turf: Ornamental lawns, golf courses and sod farms

For control/suppression of **PHYTOPHTHORA** and **PYTHIUM ROOT ROT** in the following field and greenhouse-grown crops, apply 2-4 quarts Quillaja Extract in 200 gallons water per acre (equivalent to 1.5-3 fl.oz. in 5 gallons water per 1,000 sq.ft.) to achieve a concentration of 2,500-5,000 ppm. Apply in early spring and fall, prior to root flush when soil temperatures are optimum for root infection. Apply to the entire root zone following, or at the end of, an irrigation cycle For best results, repeat application every 7 days, for up to 6 weeks. A surfactant is not necessary, but the addition of a wetting agent, such as Yucca Ag-Aide™, may increase efficacy. Quillaja Extract may be tank mixed with Sterol Inhibitor type fungicides.

Berries and Small Fruits: Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Grape (raisin, table, wine), Huckleberry, Kiwifruit, Loganberry, Raspberry (black and red), Strawberry

Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo,

Cole Crops: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Cucurbit Vegetables: Chayote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)

Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard

Nut Crop: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince

Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Gingseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)

Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune

Additional crops: Avocado, Kiwifruit

Ornamentals: Bare root, container, bedding and flowering stock, cut flowers, nursery and landscape, potted flowering, shade and flowering trees, woody ornamentals

Application Rates to Enhance Plant Growth and Yield

Under good growing conditions, absent of plant parasitic nematodes or plant parasitic fungi, Quillaja Extract is beneficial to plant growth and yield as described below.

Crop	Benefit	Rate per Acre	Comment
Grapes	Increased Fruit Yield and Root Development	1-2 quarts	Apply at root flush followed by 2-4 applications at 7-14 day intervals.
Citrus	Increased Root Development	1-2 gallons	Apply at root flush followed by 2 quarts/acre every 14 days for 4-6 weeks.
Strawberry	Increased Root Development	2-4 pts	Apply every 14 days for 8-10 weeks.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in cool, dry area.

Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Sublabel B: Home Garden and Lawn Use

Quillaja Extract

A Bio-Pesticide

*For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi
in Home Gardens and Lawns*

(OMRI Listed logo)

Active Ingredient:

*Saponins of Quillaja saponaria8.60%

Other Ingredients: 91.40%

Total: 100.00%

*bidesmosidic derivatives of quillajic acid substituted with a trisaccharide at C-3 and an oligosaccharide in C-28

KEEP OUT OF REACH OF CHILDREN

WARNING - ADVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	

See back side for additional precautionary statements.

Manufactured for:
Desert King Chile
77 Antonio Bellet, Suite 401
Providencia, Santiago
Chile

EPA Reg. No.: 82572-1
EPA Est. No.: XXXXX-XX-XX

Net Contents: XX Gallons
Batch Code [Lot No.]: XXX

Quillaja Extract; EPA Reg. No. 82572-1
Label amendment (FAST TRACK) to add OMRI Listed logo
MASTER LABEL - Version (13) – August 10, 2012
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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: Causes substantial but temporary eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through skin. Avoid contact with skin. Wear protective eyewear such as goggles, face shield or safety glasses and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For residential use in home gardens and lawns.

MIXING AND APPLICATION INSTRUCTIONS

Quijalla Extract is a concentrate that is easily mixed with water and applied with band or broadcast type sprayers. After mixing with water, apply solution within three hours of mixing. Irrigate area to be treated before application. After application has been made it may be necessary to water with either drip or above ground sprinklers. Do not over irrigate following application of this product. Over irrigation will move the desired concentration of the product too quickly past the targeted root zone.

If applied in heavy rainfall areas, avoid application during rain or when rain is forecasted within the next 24 hours that may exceed movement of this product past targeted root zone.

Application Rates for Control of Nematodes

Quillaja Extract lessens the damage caused by nematodes and increases yields. To control/suppress plant parasitic nematodes, apply Quillaja Extract to the full irrigated area using the application rate listed.

For around trees, apply from tree trunk to drip-line to cover at least 50% of soil area or the area under the canopy of the tree, whichever is greatest. Single applications should be made in the spring just prior to or during root flush, and again in the fall after harvest.

For best results, multiple applications may be made in the spring every 7 to 14 days for up to 10 weeks, followed by a single application in the fall after harvest.

Use Site	Rate
<p>Berries (Not for use in California): Blackberry (including boysenberry, dewberry, marionberry, olallieberry, youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (black and red)</p> <p>Citrus: Calamondin, Citrus citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarins, Orange (sour and sweet), Pummelo</p> <p>Grapes</p> <p>Nut Trees: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Cinquapin, Filbert, Macadamia, Pecan, Walnut (black and English)</p> <p>Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince</p> <p>Stone Fruit: Apricot, Cherry (sweet or tart), Nectarine, Peach, Plum, Plumcot, Prune</p> <p>Cole Vegetables: Broccoli (including Chinese and raab), Brussels sprouts, Cabbage (including Chinese), Cauliflower, Collards, Kale, Kohlrabi, Mizune, Mustard greens, Mustard spinach, Rape greens</p> <p>Cucurbit Vegetables: Chaoyote, Chinese waxgourd, Citron melon, Cucumber, Gherkin, Edible gourd, Momordica spp. (including balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (including cantaloupe, casaba, Crenshaw, golden pershaw, honeydew, honey balls, mango, Persian, pineapple, Santa Claus, and snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow and zucchini), Watermelon, Winter squash (including acorn, butternut, calabaza, hubbard, and spaghetti)</p> <p>Fruiting Vegetables: Eggplant, Groundcherry, Pepino, Pepper</p>	<p>Apply 8 fl. oz. of Quijalla Extract in 6 gallons of water per 1,000 sq. ft. Apply every 7-14 days for up to 10 weeks.</p>

<p>(including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato</p> <p>Leafy Vegetables: Amaranth, Arugula, Cardoon, Celery (including Chinese celery), Celtuce, Chervil, Edible chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Endive (escarole), Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio, Rhubarb, Spinach (including New Zealand and vine), Swiss chard</p> <p>Strawberry</p> <p>Bulb Vegetables: Garlic, Leek, Onion (including dry bulb, green and Welch), Shallot</p> <p>Root and Tuber Vegetables: Arrachacha, Arrowroot, Artichoke, Beet (garden and sugar), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote, Chervil, Chicory, Chufa, Dasheen, Ginger, Ginseng, Horseradish, Leren, Parsley (turnip rooted), Parsnip, Potato, Radish, Rutabaga, Salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Yam (bean and true)</p> <p>Ornamentals: Bare root, container, bedding and flowering plants, landscape, potted flowering, shade and flowering trees, woody ornamentals</p>	
<p>Lawns: For control of <i>Anguina pacifica</i> nematode only.</p>	<p>Apply 9 fl. oz. of Quijalla Extract in 3-7 gallons of water per 1,000 sq. ft. using a sprayer with a pressure nozzle tip applicator sufficient to penetrate into the lower part of the turf leaves where <i>Anguina pacifica</i> nematode galls are formed. Do not exceed a concentration of 1.5% Quillaja Extract in any application.</p> <p>Repeat applications every 5-10 days. Additional applications to break the life cycle of the nematode should be repeated 2-4 times within 60 days to significantly reduce this pest problem in one season.</p> <p>Do not water lawn for at least 12 hours following application of Quillaja Extract.</p>

	Quillaja Extract is water soluble and does not require additional water application through sprinkler following application.
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Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: To be stored in original container in a cool, well-ventilated areas inaccessible to children and pets. Store above 40°F.

Pesticide/Container Disposal: Nonrefillable container. Do not refill or reuse this container. **If empty:** Place in trash or offer for recycling in available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

Desert King Chile warrants that this product conforms to the chemical description on the label and is reasonable fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MECHANABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

[] indicate optional text

Optional Label Claims:

- A Biopesticide
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Vineyards, Orchards, Field Crops, Turf and Ornamentals (Sublabel A only).
- Controls and/or Suppresses certain foliar diseases such as Powdery Mildew(s)
- Suppresses [Nematodes], [Powdery Mildew]
- For use also on Vegetable Crops Such as: Carrots, Peppers, Tomatoes, Broccoli, Squash, and Beets (Sublabel A only).
- For Control of Plant Parasitic Nematodes and Plant Parasitic Fungi in Home Gardens and Lawns (Sublabel B only).
- (OMRI Listed logo)

